



DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
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MCO 1510.82A
C 461
16 Jan 95

MARINE CORPS ORDER 1510.82A

From: Commandant of the Marine Corps
To: Distribution List

Subj: INDIVIDUAL TRAINING STANDARDS (ITS) SYSTEM FOR UNMANNED
AERIAL VEHICLES (UAV)

Ref: (a) MCO 1510.34A
(b) MCO 1553.1B
(c) MCO 1553.2
(d) MCO 1553.3

Encl: (1) Components of an ITS
(2) ITS Management
(3) Index of Tasks by Training Location, Level of
Training, Sustainment, and Grade to Standard
(4) Common ITS Listing
(5) Training Support
(6) Individual Training Standards for Unmanned Aerial
Vehicles (UAV) MOS's 9807, 9808, 9813, 9814, 9815,
9816, and 9817

1. Purpose. To publish the ITS for UAV personnel.

2. Cancellation. MCO 1510.82.

3. Background

a. The references establish the system used to publish all training standards, provide policy, and assign responsibilities for applying the Systems Approach to Training (SAT).

b. ITS's provide a common base of training for all Marines who have the same MOS. They provide the basis for the SAT of all individual training. ITS's are to be used by institutional and unit commanders to determine proficiency of individual Marines, to establish training plans and courses of instruction, and to maintain a progressive and systematic method to monitor training impacts on Individual Career Development Plans.

c. ITS's are derived from Mission Performance Standards which come from combat requirements of the Fleet Marine Forces. Changes to doctrine, force structure, and the introduction of new weapons and equipment will require revision of this Order on a regular basis.

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distribution is unlimited.

4. Information

a. ITS's are to be used by institutional and unit commanders to design, develop, conduct, and evaluate their individual training of Marines. Institutional commanders will derive Terminal Learning Objectives (TLO) and Enabling Learning Objectives (ELO) from the tasks and performance steps set forth herein. Task lists reported on Course Descriptive Data (CDD) submissions will consist of task titles contained in this Order. Unit commanders will use the tasks contained in this Order as the basis of individual training in their long range, short range, and near term training plans.

b. The ITS for UAV contains the following:

(1) Enclosure (1) contains the components of an ITS.

(2) Enclosure (2) sets forth the ITS management, as it relates to use and maintenance.

(3) Enclosure (3) is an index of tasks by training location, level of training, sustainment, and grade to standard.

(4) Enclosure (4) is a listing of tasks common to two or more MOS's.

(5) Enclosure (5) lists training support in four categories:

(a) Appendix A, Training Devices, Simulators, and Training Aids.

(b) Appendix B, Training Equipment.

(c) Appendix C, Ammunition, Explosives, and Pyrotechnics.

(d) Appendix D, Training Materials.

(6) Enclosure (6) lists ITS's for each UAV MOS.

5. Action

a. Commanding General, Marine Corps Combat Development Command (MCCDC)

(1) Ensure that all units and institutions are using this Order to train personnel to the standards required of their grade and MOS.

(2) Ensure that the Marine Corps Institute (MCI) and the Training and Audiovisual Support Centers (TAVSC) provide standardized job aids and other training support requirements to facilitate training in units.

(3) Review, revise, and manage the upkeep of this Order in coordination with FMF Commanders, MOS/OccFld sponsors and with subject matter experts.

(4) Ensure coordination occurs with the Commander, Marine Corps Systems Command (MARCORSYSCOM).

b. Commanding Generals of the Marine Forces Atlantic/Pacific and Supporting Establishment Commands; and Commanders of Separate Organizations not commanded by a General Officer

(1) Use this Order to implement the SAT process for UAV training.


(2) Establish managed on-the-job-training (MOJT) programs to train Marines using the tasks to form the basis of initial, sustainment, or refresher training proficiencies in units both for Unmanned Aerial Vehicles and command training plans.

6. Submission of Recommendations and Requirements.

Recommendations concerning the contents of this Order are invited. Submit recommendations for change and recommended training requirements to the Commanding General, MCCDC (C 461M) via the appropriate chain of command.

7. Mobilization. All ITS's in this Order will remain in effect during mobilization.

8. Reserve Applicability. This Order is applicable to the Marine Corps Reserve.


B. B. KNUTSON, JR.
By direction

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COMPONENTS OF AN ITS

1. General. ITS's contain six components; task, condition(s), standard, performance steps, reference(s), and administrative instructions.
2. Alphanumeric System. Each ITS is identified by the MOS followed by a series of numbers which identify the Duty Area, and Task.
 - a. The MOS is identified by four Arabic numbers. The four numbers are the ones assigned to the MOS in the MCO P1200.7 (MOS Manual). For the Ground Control Station (GCS) Internal Pilot MOS, the numeric designators would be 9808.X.X.
 - b. Duty areas are identified by ascending Arabic numerals and are numbered consecutively by MOS. The designator for the first duty area under MOS 9808 would be 9808.1.X.
 - c. Tasks within a duty area are numbered consecutively. The first task under the first duty area of MOS 9808 is numbered 9808.1.1. The second task under the third duty area of MOS 9808 is numbered 9808.3.2, and so forth.
3. ITS Components
 - a. Task. The task describes what a Marine has to do. It is a clearly stated, performance oriented action requiring a learned skill. Knowledge or enrichment topics which are required for the performance of a specific task are included in the Administrative instructions. This type of information may very well comprise a separate class with its own TLO/ELO, but is not a separate task.
 - b. Condition(s). The conditions set forth the real world or wartime circumstances in which the tasks are to be performed. This element of an ITS underscores "realism" in training. When resources or safety requirement limit the conditions, this should be stated. It is important to understand that the conditions set forth in this Order are the minimum, and may be adjusted when applicable.
 - c. Standard. A standard is inviolate. It is not guidance, but a very carefully worded statement which sets the proficiency level expected when the task is performed. The standard should summarize the performance steps.
 - d. Performance Steps. There must be at least two performance steps for each task. Performance steps specify actions required to fulfill the proficiency established by the standard.

ENCLOSURE (1)

MCO 1510.82A
16 Jan 95

e. Reference(s). Reference(s) are doctrinal publications which provide the authority vested in ITS's. References should be publications which are readily available.

f. Administrative Instructions. Administrative Instructions provide the trainer/instructor with special circumstances relating to the ITS such as safety, real world limitations, and knowledge or enrichment topics which may be a prerequisite to successful accomplishment of the ITS.

ENCLOSURE (1)

ITS MANAGEMENT

1. General. The management of ITS involves their use and maintenance.

a. ITS Use

(1) ITS are the basis for all individual training in units and formal schools. Since ITS are written for every MOS they specify every proficiency Marines are required to achieve as individuals in support of their unit combat missions.

(2) ITS provide measures of performance that must be used by unit commanders to both diagnose individual deficiencies and to evaluate training. Deficiencies should be recorded and scheduled on future training plans. ITS which are mastered should be recorded in individual training records and scheduled for sustainment/refresher training in the future.

(3) Institution commanders are responsible for providing instruction based on ITS. These selected ITS appear as tasks on item number 24 of the Course Descriptive Data. Using the SAT process, institutional commanders formulate programs of instruction (POI) which fulfill the requirements of the operating forces.

(4) Unit and institution commanders must work in tandem so that individuals continue to receive instruction until mandated proficiencies are achieved. Individual training cannot and should not cease upon graduation from a formal school. Schools do not have the resources (people, time, money) to teach every ITS required for MOS proficiency. Unit commanders must recognize this and continue individual training. When Marines do achieve proficiencies, unit commanders must systematically record these proficiencies and establish periodic sustainment training according to the frequency set forth in enclosure (3).

b. ITS Maintenance

(1) ITS exist because of the threat. Changes which occur must be reflected in ITS as a team effort of the formal schools, the operating forces, and staff agencies at Headquarters, U.S. Marine Corps and at the Marine Corps Combat Development Command. Changes in the threat, new weapons/equipment and doctrine will require new or updated training proficiencies.

(2) ITS are validated when they are used by institution and unit commanders. Changes can be initiated by units, institutions, or higher headquarters. In order to ensure quality training, ITS must be updated continuously. Input will be

ENCLOSURE (2)

MCO 1510.82A
16 Jan 95

systematically collected, staffed, and incorporated into ITS at least annually.

(3) ITS users should be critical of the ITS as a whole as they support or fail to support a particular MOS.

(4) Specific components of an ITS should also be examined for realism and pertinence.

(5) ITS Management is dynamic. User maintenance is the key to refining proficiencies which best serve unit missions.

ENCLOSURE (2)

INDEX OF TASKS BY TRAINING LOCATION, LEVEL OF TRAINING,
SUSTAINMENT, AND GRADE TO STANDARD

1. This enclosure identifies where ITS's are taught, Training Location; the Level of Training regarding proficiency, "P" for preliminary, not to standard, and "S" for trained to standard; and the lowest grade required to demonstrate proficiency in each ITS.
2. The Training Location is either Formal School (FS) or MOJT.
3. Sustainment training is always the responsibility of the unit commander. The number in the MOJT column represents the number of months between evaluation or retraining to maintain the proficiency required by the standard.

| TASK NUMBER | TASK | FS | MOJT SUST | Grade |
|---|--|-----|--------------|-------|
| MOS 9807, MISSION COMMANDER | | | | |
| 9807.1.1 | ESTABLISH MISSION REQUIREMENTS | S/3 | | CAPT |
| 9807.1.2 | DIRECT MISSION PLANNING | S/3 | | CAPT |
| 9807.1.3 | CONDUCT MISSION BRIEFING | S/3 | | CAPT |
| 9807.1.4 | PERFORM PRE-FLIGHT PROCEDURES | S/3 | | CAPT |
| 9807.2.1 | INITIATE TAKEOFF | S/3 | | CAPT |
| 9807.2.2 | SUPERVISE MISSION PROGRESS | S/3 | | CAPT |
| 9807.2.3 | CONDUCT RECON, SURVEILLANCE, TARGET ACQUISITION MISSION | S/3 | | CAPT |
| 9807.2.4 | CONDUCT FIRE SUPPORT MISSION | S/3 | | CAPT |
| 9807.2.5 | SUPERVISE SYSTEM MALFUNCTION OR EMERGENCY | S/3 | | CAPT |
| 9807.2.6 | PERFORM POST MISSION TASKS | S/3 | | CAPT |
| MOS 9808, GROUND CONTROL STATION (GCS) INTERNAL PILOT | | | | |
| 9808.1.1 | COMPLETE MISSION DATA SHEET | S | 3 | CAPT |

| TASK NUMBER | TASK | FS | MOJT SUST | Grade |
|---------------------|--|----|--------------|-------|
| 9808.1.2 | CALCULATE UAV PERFORMANCE DATA | S | 3 | CAPT |
| 9808.1.3 | CONDUCT UAV ROUTE PLANNING | S | 3 | CAPT |
| 9808.2.1 | COMPLETE THE PRE-FLIGHT CHECKLIST | S | 3 | CAPT |
| 9808.2.2 | ENTER PRESET DATA INTO GCS | S | 3 | CAPT |
| 9808.2.3 | CONFIGURE THE PILOT BAY FOR THE MISSION | S | 3 | CAPT |
| 9808.2.4 | PREPARE THE PLOTTER | S | 3 | CAPT |
| 9808.2.5 | CONFIGURE THE TCD-2000 FOR THE MISSION | S | 3 | CAPT |
| 9808.3.1 | START ENGINE | S | 3 | CAPT |
| 9808.3.2 | LAUNCH THE UAV | S | 3 | CAPT |
| 9808.3.3 | CONDUCT POST LAUNCH PROCEDURES | S | 3 | CAPT |
| 9808.3.4 | PERFORM DISH LOCK PROCEDURES | S | 3 | CAPT |
| 9808.3.5 | FLY THE UAV IN THE PROGRAMMED MODE | S | 3 | CAPT |
| 9808.3.6 | FLY THE UAV IN THE MANUAL CONTROL MODE | S | 3 | CAPT |
| 9808.3.7 | PERFORM EMERGENCY FLIGHT OPERATIONS | S | 3 | CAPT |
| 9808.3.8 | CONDUCT RECON, SURVEILLANCE AND TARGET ACQUISITION/ FIRE SUPPORT MISSION | S | 3 | CAPT |
| 9808.3.9 | TRANSFER UAV CONTROL TO ANOTHER CONTROL STATION | S | 3 | CAPT |
| 9808.3.10 | EXECUTE RETURN TO BASE PROCEDURES | S | 3 | CAPT |
| 9808.4.1 | PERFORM DESCENT PROCEDURES | S | 3 | CAPT |
| 9808.4.2 | COMPLETE LANDING APPROACH | S | 3 | CAPT |
| 9808.4.3 | ASSIST THE EXTERNAL PILOT DURING RECOVERY | S | 3 | CAPT |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|---|--|----|------|---------------|
| 9808.5.1 | COMPLETE POST RECOVERY PROCEDURES | S | 3 | CAPT |
| 9808.5.2 | PERFORM POST MISSION TASKS | S | 3 | CAPT |
| MOS MNTO, UAV MAINTENANCE OFFICER | | | | |
| MNTO.1.1 | PLAN FOR TACTICAL DEPLOYMENT OF THE UAV SYSTEM AND MAINTENANCE PLATOON | | S/3 | WO |
| MNTO.1.2 | WRITE A UAV MAINTENANCE POLICY LETTER | | S/12 | WO |
| MNTO.2.1 | DEPLOY THE UAV SYSTEM AND UAV MAINTENANCE PLATOON | | S/3 | WO |
| MNTO.2.2 | DIRECT UAV MAINTENANCE SHOP PROCEDURES FOR A UAV MAINTENANCE PLATOON | | S/3 | WO |
| MNTO.2.3 | DIRECT UAV MAINTENANCE FOR THE MAINTENANCE PLATOON | | S/3 | WO |
| MNTO.2.4 | DIRECT UAV LOGISTIC SUPPORT FOR THE UAV UNIT | | S/3 | WO |
| MOS 9813, GROUND CONTROL STATION (GCS) PAYLOAD OPERATOR | | | | |
| 9813.1.1 | PLAN UAV MISSION | S | 3 | LCPL |
| 9813.1.2 | CONDUCT THE BAY AUTOMATIC TEST OF STATION | S | 3 | LCPL |
| 9813.1.3 | ACTIVATE THE PRESET CONTROL MODE | S | 3 | LCPL |
| 9813.1.4 | CONDUCT PIXEL SIGHT ALIGNMENT | S | 3 | LCPL |
| 9813.1.5 | SELECT PROGRAM OPTIONS VIA MULTI-FUNCTION | S | 3 | LCPL |
| 9813.1.6 | PREPARE THE VCR-2000 FOR MISSION | S | 3 | LCPL |
| 9813.1.7 | PREPARE THE OTMP-2000 FOR MISSION | S | 3 | LCPL |
| 9813.1.8 | PREPARE THE OVC-2000 FOR MISSION | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT SUST | Grade |
|---|---|----|--------------|-------|
| 9813.1.9 | PREPARE THE OCD-200 FOR MISSION | S | 3 | LCPL |
| 9813.1.10 | PREPARE THE OCT-2000 FOR MISSION | S | 3 | LCPL |
| 9813.1.11 | ORIENT THE PLOTTER | S | 3 | LCPL |
| 9813.1.12 | PREPARE THE TCD-2000 FOR MISSION | S | 3 | LCPL |
| 9813.2.1 | OPERATE THE PLATFORM | S | 3 | LCPL |
| 9813.2.2 | OPERATE THE MOKED 200 PAYLOAD CAMERA | S | 3 | LCPL |
| 9813.2.3 | OPERATE THE MOKED 400 PAYLOAD CAMERA | S | 3 | LCPL |
| 9813.2.4 | PERFORM TARGET ACQUISITION | S | 3 | LCPL |
| 9813.2.5 | OPERATE THE PLOTTER | S | 3 | LCPL |
| 9813.2.6 | PERFORM ARTILLERY ADJUSTMENT | S | 3 | LCPL |
| 9813.2.7 | PERFORM GENERAL NAVIGATION | S | 3 | LCPL |
| 9813.2.8 | PERFORM TARGET SEARCH | S | 3 | LCPL |
| 9813.2.9 | PERFORM CAMERA GUIDE PROCEDURES | S | 3 | LCPL |
| 9813.2.10 | PERFORM POST MISSION TASKS | S | 3 | LCPL |
| MOS 9814, EXTERNAL UNMANNED AERIAL VEHICLE (UAV) OPERATOR | | | | |
| 9814.1.1 | PERFORM UAV ENGINE PRE-STARTING PROCEDURES | S | 3 | LCPL |
| 9814.1.2 | PERFORM UAV ENGINE START | S | 3 | LCPL |
| 9814.1.3 | CONDUCT PRE-TAKEOFF CHECKS | S | 3 | LCPL |
| 9814.1.4 | TAXI THE UAV TO THE EXTERNAL (UAV) OPERATOR POSITION | S | 3 | LCPL |
| 9814.2.1 | PERFORM TAKEOFF AND INITIAL CLIMB PROCEDURES FROM A RUNWAY | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|--------------------|---|----|------|---------------|
| 9814.2.2 | PERFORM TAKEOFF AND INITIAL CLIMB PROCEDURES FROM THE PNEUMATIC LAUNCHER | S | 3 | LCPL |
| 9814.2.3 | PERFORM TAKEOFF AND INITIAL CLIMB PROCEDURES FROM THE ROCKET ASSISTED TAKEOFF (RATO) LAUNCHER | S | 3 | LCPL |
| 9814.2.4 | TRANSFER CONTROL TO THE INTERNAL PILOT OR THE PCS OPERATOR | S | 3 | LCPL |
| 9814.3.1 | PERFORM EMERGENCY PROCEDURES FOR TELEMETRY FAILURE/INCORRECT DATA FROM DOWNLINK DURING DAYTIME | S | 3 | LCPL |
| 9814.3.2 | PERFORM EMERGENCY PROCEDURES FOR TELEMETRY FAILURE/INCORRECT DATA FROM DOWNLINK DURING NIGHT | S | 3 | LCPL |
| 9814.3.3 | PERFORM EMERGENCY PROCEDURES WHEN A FAST IDLE CONDITION OCCURS | S | 3 | LCPL |
| 9814.3.4 | PERFORM AUTOPILOT FAILURE EMERGENCY PROCEDURES | S | 3 | LCPL |
| 9814.3.5 | PERFORM BATTERY/GENERATOR FAILURE EMERGENCY PROCEDURES | S | 3 | LCPL |
| 9814.3.6 | PERFORM EMERGENCY PROCEDURES FOR ENGINE MALFUNCTION IMMEDIATELY AFTER TAKEOFF | S | 3 | LCPL |
| 9814.3.7 | PERFORM EMERGENCY PROCEDURES WHEN AN ENGINE MALFUNCTION OCCURS WHILE THE UAV IS IN VISUAL RANGE | S | 3 | LCPL |
| 9814.3.8 | PERFORM PNEUMATIC LAUNCHER MISFIRE PROCEDURES | S | 3 | LCPL |
| 9814.3.9 | PERFORM RATO MISFIRE PROCEDURES | S | 3 | LCPL |
| 9814.4.1 | ASSUME CONTROL FROM THE INTERNAL PILOT OR PCS OPERATOR | S | 3 | LCPL |
| 9814.4.2 | RECOVER THE UAV ON A RUNWAY DURING THE DAY | S | 3 | LCPL |
| 9814.4.3 | RECOVER THE UAV ON A RUNWAY AT NIGHT | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|--|---|----|------|---------------|
| 9814.4.4 | PERFORM POST MISSION TASKS | S | 3 | LCPL |
| 9814.5.1 | PERFORM A HOOK ARRESTING SYSTEM (HAS) PREFLIGHT/DAILY INSPECTION | S | 3 | LCPL |
| 9814.5.2 | PERFORM HAS MAINTENANCE | S | 3 | LCPL |
| 9814.5.3 | PERFORM HAS LONG-TERM STORAGE PROCEDURES | S | 3 | LCPL |
| 9814.5.4 | PERFORM HAS POST-FLIGHT CHECK | S | 3 | LCPL |
| 9814.5.5 | PERFORM SETUP PROCEDURES FOR HAS | S | 3 | LCPL |
| MOS 9815, ELECTRONIC/ELECTRICAL MAINTENANCE TECHNICIAN | | | | |
| 9815.1.1 | PERFORM THE UAV AUTOMATIC TEST | S | 3 | LCPL |
| 9815.1.2 | PERFORM THE G-BAND TRANSMISSION FUNCTIONAL TEST | S | 3 | LCPL |
| 9815.1.3 | PERFORM THE G-BAND RECEIVER SENSITIVITY TEST | S | 3 | LCPL |
| 9815.1.4 | PERFORM THE G-BAND ANTENNA VSWR CHECK | S | 3 | LCPL |
| 9815.1.5 | PERFORM THE UHF RECEIVER SENSITIVITY TEST | S | 3 | LCPL |
| 9815.1.6 | PERFORM THE UHF ANTENNA VSWR TEST | S | 3 | LCPL |
| 9815.1.7 | PERFORM THE SPREAD SPECTRUM RECEIVER TEST | S | 3 | LCPL |
| 9815.1.8 | REPLACE THE G-BAND RECEIVER UNIT (RCU) | S | 3 | LCPL |
| 9815.1.9 | REPLACE THE G-BAND DIPLEXER UNIT (DCU) | S | 3 | LCPL |
| 9815.1.10 | REPLACE THE G-BAND TRANSMITTER (TX) | S | 3 | LCPL |
| 9815.1.11 | REPLACE THE G-BAND POWER UNIT (PCU) | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|----------------|---|----|------|---------------|
| 9815.1.12 | REPLACE THE DC TO DC CONVERTER (DDC) | S | 3 | LCPL |
| 9815.1.13 | REPLACE THE +15V POWER SUPPLY MODULE | S | 3 | LCPL |
| 9815.1.14 | REPLACE THE G-BAND OMNI/DIRECTIONAL ANTENNA | S | 3 | LCPL |
| 9815.1.15 | REPLACE THE G-BAND OMNI ANTENNA | S | 3 | LCPL |
| 9815.1.16 | REPLACE THE UHF RECEIVER UNIT (RUU) | S | 3 | LCPL |
| 9815.1.17 | REPLACE THE IFF TRANSPONDER | S | 3 | LCPL |
| 9815.1.18 | REPLACE THE ELECTRICAL POWER SUPPLY (EPS) | S | 3 | LCPL |
| 9815.1.19 | REPLACE THE ELECTRICAL POWER SUPPLY (EPS) FUSES | S | 3 | LCPL |
| 9815.1.20 | PERFORM BATTERY EMERGENCY UNIT (BEU) PREVENTIVE MAINTENANCE | S | 3 | LCPL |
| 9815.1.21 | CHARGE/DISCHARGE THE BATTERY EMERGENCY UNIT (BEU) | S | 3 | LCPL |
| 9815.2.1 | PERFORM A COMMUNICATIONS BAY (CBY) VISUAL INSPECTION | S | 1 | LCPL |
| 9815.2.2 | CLEAN THE COMMUNICATIONS BAY (CBY) | S | 1 | LCPL |
| 9815.2.3 | CLEAN THE TRACKING CONTROL UNIT (TCU) BAY FILTERS | S | 1 | LCPL |
| 9815.2.4 | CLEAN THE TRACKING CONTROL UNIT (TCU) VENTILATOR | S | 1 | LCPL |
| 9815.2.5 | PERFORM A TRACKING CONTROL UNIT (TCU) FUNCTIONAL AND TROUBLESHOOTING TEST | S | 1 | LCPL |
| 9815.2.6 | CONDUCT COMMUNICATIONS BAY (CBY) AUTOMATIC TESTS | S | 1 | LCPL |
| 9815.2.7 | REPLACE THE COMMUNICATIONS CONTROL BOX (CCB) | S | 6 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|---------------------|---|----|------|---------------|
| 9815.2.8 | REPLACE THE MICROPROCESSOR CONTROLLED AUTOTRACKER (MCAT) | S | 6 | LCPL |
| 9815.2.9 | REPLACE THE ENCODER/DECODER CAGE (EDC) | S | 6 | LCPL |
| 9815.2.10 | REPLACE THE COMMUNICATIONS TEST UNIT (CTU) | S | 6 | LCPL |
| 9815.2.11 | REPLACE THE TYPICAL RACK MOUNTED DRAWER | S | 6 | LCPL |
| 9815.2.12 | REPLACE THE TRANSMITTER SPREAD SPECTRUM (TX SP/SP) | S | 6 | LCPL |
| 9815.2.13 | REPLACE THE UHF TRANSMITTER (TXUHF) | S | 6 | LCPL |
| 9815.2.14 | REPLACE THE G-BAND RECEIVER (RXC) | S | 6 | LCPL |
| 9815.2.15 | REPLACE THE COMMUNICATIONS BAY (CBY) POWER SUPPLIES | S | 6 | LCPL |
| 9815.2.16 | REPLACE THE 28VDC POWER SUPPLY | S | 6 | LCPL |
| 9815.2.17 | REPLACE THE TRACKING ANTENNA | S | 6 | LCPL |
| 9815.2.18 | REPLACE THE G-BAND OMNI ANTENNA | S | 6 | LCPL |
| 9815.2.19 | REPLACE THE UHF ANTENNA | S | 6 | LCPL |
| 9815.2.20 | PERFORM A G-BAND TRANSMISSION FREQUENCY TEST | S | 3 | LCPL |
| 9815.2.21 | PERFORM A G-BAND TRANSMITTER MODULATION TEST | S | 3 | LCPL |
| 9815.2.22 | PERFORM A UHF TRANSMITTER FREQUENCY TEST | S | 3 | LCPL |
| 9815.2.23 | PERFORM A UHF TRANSMITTER MODULATION TEST | S | 3 | LCPL |
| 9815.2.24 | PERFORM A G-BAND TRANSMITTER BI- PHASE IN AMPLITUDE TEST | S | 3 | LCPL |
| 9815.2.25 | PERFORM A RECEIVER TM CHANNEL SENSITIVITY TEST | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|----------------|--|----|------|---------------|
| 9815.2.26 | PERFORM A RECEIVER VIDEO CHANNEL SENSITIVITY TEST | S | 3 | LCPL |
| 9815.2.27 | PERFORM A G-BAND TRANSMISSION POWER TEST | S | 3 | LCPL |
| 9815.2.28 | PERFORM A UHF TRANSMISSION POWER TEST | S | 3 | LCPL |
| 9815.2.29 | REPLACE THE TRACKING ANTENNA FEEDER | S | 6 | LCPL |
| 9815.2.30 | REPLACE THE ELEVATION DRIVE ASSEMBLY | S | 6 | LCPL |
| 9815.2.31 | REPLACE THE ELEVATION DRIVE ASSEMBLY CONTROL | S | 6 | LCPL |
| 9815.2.32 | PERFORM ELEVATION DRIVE ASSEMBLY PERIODIC INSPECTIONS | S | 3 | LCPL |
| 9815.2.33 | PERFORM THE GCS DAILY INSPECTION | S | 3 | LCPL |
| 9815.2.34 | PERFORM TCU DAILY INSPECTION | S | 3 | LCPL |
| 9815.2.35 | PERFORM GROUND DATA SYSTEM (GDS) INTERCOM SYSTEM MAINTENANCE | S | 3 | LCPL |
| 9815.3.1 | ADJUST HEADING REPORTS | S | 3 | LCPL |
| 9815.3.2 | ADJUST THE INDICATED AIRSPEED REPORT | S | 3 | LCPL |
| 9815.3.3 | ADJUST THE ALTITUDE REPORT | S | 3 | LCPL |
| 9815.3.4 | ADJUST THE FLUX VALVE UNIT (FVU) OUTPUT | S | 3 | LCPL |
| 9815.3.5 | ADJUST THE VERTICAL GYRO UNIT (VGU) | S | 3 | LCPL |
| 9815.3.6 | REPLACE THE CENTRAL PROCESSING ASSEMBLY (CPA) | S | 3 | LCPL |
| 9815.3.7 | REPLACE THE CENTRAL PROCESSING ASSEMBLY (CPA) CIRCUIT CARDS | S | 3 | LCPL |
| 9815.3.8 | REPLACE THE FLUX VALVE UNIT (FVU) | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|---------------------|--|----|------|---------------|
| 9815.3.9 | REPLACE THE VERTICAL GYRO UNIT (VGU) | S | 3 | LCPL |
| 9815.3.10 | REPLACE THE RATE GYRO UNIT (RGU) | S | 3 | LCPL |
| 9815.3.11 | REPLACE THE AIRSPEED TRANSDUCER UNIT (ATU) | S | 3 | LCPL |
| 9815.3.12 | REPLACE THE BAROMETRIC PRESSURE UNIT (BPU) | S | 3 | LCPL |
| 9815.4.1 | PERFORM A MKD-200 FUNCTIONAL TEST | S | 3 | LCPL |
| 9815.4.2 | PERFORM A MKD-400 FUNCTIONAL TEST | S | 3 | LCPL |
| 9815.4.3 | PERFORM THE MKD-200 PIXEL ALIGNMENT | S | 3 | LCPL |
| 9815.4.4 | PERFORM MKD-400 PIXEL ALIGNMENT | S | 3 | LCPL |
| 9815.4.5 | PERFORM MKD-200 ALIGNMENT PROCEDURES | S | 3 | LCPL |
| 9815.4.6 | TROUBLESHOOT THE MKD-400 PAYLOAD SYSTEM | S | 3 | LCPL |
| 9815.4.7 | TROUBLESHOOT THE MKD-200 PAYLOAD SYSTEM | S | 3 | LCPL |
| 9815.4.8 | REPLACE THE MKD-200 BUBBLE DOME | S | 3 | LCPL |
| 9815.4.9 | ALIGN THE MKD-400 SYSTEM | S | 3 | LCPL |
| 9815.4.10 | REPLACE THE PAYLOAD SHIELD SOLENOID ASSEMBLY | S | 3 | LCPL |
| 9815.5.1 | PERFORM A GCS VISUAL INSPECTION | S | 3 | LCPL |
| 9815.5.2 | MAINTAIN CLEANLINESS OF THE GCS | S | 3 | LCPL |
| 9815.5.3 | SERVICE THE GROUND DATA SYSTEM (GDS) BACKUP BATTERY PACK | S | 3 | LCPL |
| 9815.5.4 | PERFORM GROUND CONTROL STATION (GCS) AIR CONDITIONER (AC) PREVENTIVE MAINTENANCE | S | 3 | LCPL |
| 9815.5.5 | CLEAN THE GROUND CONTROL STATION (GCS) BAY FILTERS | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|---------------------|--|----|------|---------------|
| 9815.5.6 | CLEAN THE GROUND CONTROL STATION (GCS) VENTILATOR | S | 3 | LCPL |
| 9815.5.7 | PERFORM DC/AC INVERTER FUNCTIONAL AND TROUBLESHOOTING TESTS | S | 3 | LCPL |
| 9815.5.8 | REPLACE A TYPICAL PAYLOAD CONTROL MODULE | S | 3 | LCPL |
| 9815.5.9 | REPLACE PILOT CONTROL DESK (PCD) | S | 3 | LCPL |
| 9815.5.10 | REPLACE TRACKER CONTROL DESK (TCD) | S | 3 | LCPL |
| 9815.5.11 | REPLACE OBSERVER CONTROL DESK (OCD) UNITS | S | 3 | LCPL |
| 9815.5.12 | REPLACE THE PILOT DISPLAY PANEL (PDP) | S | 3 | LCPL |
| 9815.5.13 | REPLACE THE OBSERVER VIDEO CONTROL (OVC) PANEL | S | 3 | LCPL |
| 9815.5.14 | TEST AND REPLACE THE PLOTTER | S | 3 | LCPL |
| 9815.5.15 | REPLACE PILOT CONTROL TABLE (PCT) | S | 3 | LCPL |
| 9815.5.16 | REPLACE OBSERVER CONTROL TABLE (OCT) UNITS | S | 3 | LCPL |
| 9815.5.17 | REPLACE PC BOARDS | S | 3 | LCPL |
| 9815.5.18 | REPLACE THE POWER SUPPLY MODULE | S | 3 | LCPL |
| 9815.5.19 | PERFORM GCS/TCU RDC POWER SUPPLY ADJUSTMENT PROCEDURES | S | 3 | LCPL |
| 9815.5.20 | REPLACE PUSHBUTTONS | S | 3 | LCPL |
| 9815.5.21 | REPLACE LIGHT BULBS IN THE INDICATOR LAMPS | S | 3 | LCPL |
| 9815.5.22 | REPLACE LIGHT BULBS IN PUSHBUTTONS | S | 3 | LCPL |
| 9815.6.1 | PERFORM A REMOTE RECEIVING STATION GENERAL CHECK | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|---------------------|---|----|------|---------------|
| 9815.6.2 | PERFORM FAULT LOCALIZATION AND ISOLATION | S | 3 | LCPL |
| 9815.6.3 | REPLACE THE DIRECTIONAL ANTENNA | S | 3 | LCPL |
| 9815.6.4 | REPLACE THE PEDESTAL MOTOR ELECTRICAL BRUSHES | S | 3 | LCPL |
| 9815.6.5 | REPLACE THE RECEIVER UNIT | S | 3 | LCPL |
| 9815.6.6 | REPLACE THE FRONT PANEL ASSEMBLY | S | 3 | LCPL |
| 9815.6.7 | REPLACE THE POWER SUPPLY BOX ASSEMBLY (PSBA) | S | 3 | LCPL |
| 9815.6.8 | REPLACE THE COMMAND PANEL | S | 3 | LCPL |
| 9815.6.9 | REPLACE THE OMNI ANTENNA | S | 3 | LCPL |
| 9815.7.1 | PERFORM A PORTABLE CONTROL STATION (PCS) DAILY INSPECTION | S | 3 | LCPL |
| 9815.7.2 | CLEAN THE PORTABLE CONTROL STATION (PCS) | S | 3 | LCPL |
| 9815.7.3 | CLEAN THE EDAK CASE FILTER | S | 3 | LCPL |
| 9815.7.4 | SERVICE THE PCS BACKUP BATTERY PACK | S | 3 | LCPL |
| 9815.7.5 | REPLACE THE 28 VOLT POWER SUPPLY | S | 3 | LCPL |
| 9815.7.6 | PERFORM A TROUBLESHOOTING/FUNCTIONAL TEST FOR THE ELECTRONIC POWER SUPPLY SYSTEM | S | 3 | LCPL |
| 9815.7.7 | REPLACE CASE-MOUNTED UNITS | S | 3 | LCPL |
| 9815.7.8 | REPLACE THE CONTROL TABLE | S | 3 | LCPL |
| 9815.7.9 | REPLACE THE DESK UNIT | S | 3 | LCPL |
| 9815.7.10 | REPLACE PRINTED CIRCUIT (PC) BOARDS | S | 3 | LCPL |
| 9815.7.11 | REPLACE PUSHBUTTONS | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|----------------|--|----|------|---------------|
| 9815.7.12 | REPLACE LIGHT BULBS IN INDICATOR LAMPS | S | 3 | LCPL |
| 9815.7.13 | REPLACE LIGHT BULBS IN PUSHBUTTONS | S | 3 | LCPL |
| 9815.7.14 | REPLACE THE G-BAND DIRECTIONAL ANTENNA | S | 3 | LCPL |
| 9815.7.15 | REPLACE THE G-BAND OMNI ANTENNA | S | 3 | LCPL |
| 9815.7.16 | REPLACE THE UHF ANTENNA | S | 3 | LCPL |
| 9815.7.17 | REPLACE THE RF BOX | S | 3 | LCPL |
| 9815.7.18 | REPLACE THE RF PEDESTAL | S | 3 | LCPL |
| 9815.7.19 | REPLACE THE G-BAND RECEIVER (RXC) | S | 3 | LCPL |
| 9815.7.20 | REPLACE THE G-BAND TRANSMITTER (TX SP/SP) | S | 3 | LCPL |
| 9815.7.21 | REPLACE THE UHF TRANSMITTER (TX UHF) | S | 3 | LCPL |
| 9815.7.22 | REPLACE THE MICROPROCESSOR CONTROLLED AUTOTRACKER (MCAT) | S | 3 | LCPL |
| 9815.7.23 | REPLACE THE ENCODER/DECODER CAGE (EDC) | S | 3 | LCPL |
| 9815.7.24 | REPLACE THE COMMUNICATION CONTROL BOX (CCB) | S | 3 | LCPL |
| 9815.7.25 | PERFORM A PCS G-BAND TRANSMISSION FREQUENCY TEST | S | 3 | LCPL |
| 9815.7.26 | PERFORM A PCS G-BAND TRANSMITTER MODULATION TEST | S | 3 | LCPL |
| 9815.7.27 | PERFORM A PCS UHF TRANSMITTER FREQUENCY TEST | S | 3 | LCPL |
| 9815.7.28 | PERFORM A PCS UHF TRANSMITTER MODULATION TEST | S | 3 | LCPL |
| 9815.7.29 | PERFORM A PCS TRANSMITTER BI- PHASE IN AMPLITUDE TEST | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|---|---|----|------|---------------|
| 9815.7.30 | PERFORM A PCS RECEIVER TM CHANNEL SENSITIVITY TEST | S | 3 | LCPL |
| 9815.7.31 | PERFORM A PCS RECEIVER VIDEO CHANNEL SENSITIVITY TEST | S | 3 | LCPL |
| 9815.7.32 | PERFORM A PCS G-BAND TRANSMISSION POWER TEST | S | 3 | LCPL |
| 9815.7.33 | PERFORM A PCS UHF TRANSMISSION POWER TEST | S | 3 | LCPL |
| 9815.8.1 | DEPLOY THE GROUND CONTROL SYSTEM (GCS) | S | 3 | LCPL |
| 9815.8.2 | DEPLOY THE PORTABLE CONTROL STATION (PCS) | S | 3 | LCPL |
| 9815.8.3 | DEPLOY THE TRACKING AND COMMUNICATIONS UNIT (TCU) | S | 3 | LCPL |
| 9815.8.4 | INSPECT THE SYSTEM EXTERNAL CABLING | S | 3 | LCPL |
| 9815.8.5 | PREPARE FOR MOVEMENT | S | 3 | LCPL |
| MOS 9816, MECHANICAL MAINTENANCE TECHNICIAN | | | | |
| 9816.1.1 | ASSEMBLE THE UAV | S | 3 | LCPL |
| 9816.1.2 | DISASSEMBLE THE UAV | S | 3 | LCPL |
| 9816.1.3 | PERFORM UAV SPECIAL INSPECTIONS | S | 3 | LCPL |
| 9816.1.4 | PERFORM UAV PREFLIGHT CHECKS | S | 3 | LCPL |
| 9816.1.5 | PERFORM THE IFF TRANSPONDER TEST | S | 3 | LCPL |
| 9816.1.6 | PERFORM UAV POST-FLIGHT CHECKS | S | 3 | LCPL |
| 9816.1.7 | INSPECT THE UAV AFTER HARD LANDING | S | 3 | LCPL |
| 9816.1.8 | REPAIR DAMAGE TO FIBERGLASS SKIN | S | 3 | LCPL |
| 9816.1.9 | REPAIR DAMAGE TO THE POLYURETHANE CORE | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|----------------|--|----|------|---------------|
| 9816.1.10 | REPAIR DAMAGE TO THE Balsa WOOD CORE | S | 3 | LCPL |
| 9816.1.11 | REPAIR FIBERGLASS SKIN COATED WITH DOPE | S | 3 | LCPL |
| 9816.1.12 | INSPECT UAV WINGS | S | 3 | LCPL |
| 9816.1.13 | REPLACE UAV WINGS | S | 3 | LCPL |
| 9816.1.14 | INSPECT THE TAIL ASSEMBLY | S | 3 | LCPL |
| 9816.1.15 | REPLACE THE TAIL ASSEMBLY | S | 3 | LCPL |
| 9816.1.16 | REPLACE BOOMS | S | 3 | LCPL |
| 9816.1.17 | INSPECT VERTICAL STABILIZERS | S | 3 | LCPL |
| 9816.1.18 | REPLACE THE RIGHT VERTICAL STABILIZER | S | 3 | LCPL |
| 9816.1.19 | REPLACE THE LEFT VERTICAL STABILIZER | S | 3 | LCPL |
| 9816.1.20 | PERFORM NOSE LANDING GEAR PREVENTIVE MAINTENANCE | S | 3 | LCPL |
| 9816.1.21 | REPLACE THE NOSE LANDING GEAR | S | 3 | LCPL |
| 9816.1.22 | PERFORM MAIN LANDING GEAR PREVENTIVE MAINTENANCE | S | 3 | LCPL |
| 9816.1.23 | REPLACE THE MAIN LANDING GEAR | S | 3 | LCPL |
| 9816.1.24 | REPLACE THE MAIN LANDING GEAR WHEELS | S | 3 | LCPL |
| 9816.1.25 | REPLACE THE MAIN LANDING GEAR TIRES | S | 3 | LCPL |
| 9816.1.26 | INSPECT THE ARRESTING HOOK ASSEMBLY | S | 3 | LCPL |
| 9816.1.27 | REPLACE THE ARRESTING HOOK | S | 3 | LCPL |
| 9816.1.28 | REPLACE THE CATCH-RELEASE MECHANISM | S | 3 | LCPL |
| 9816.1.29 | INSPECT THE LAUNCHER GUIDES | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|----------------|---|----|------|---------------|
| 9816.1.30 | REPLACE THE LAUNCHER GUIDES | S | 3 | LCPL |
| 9816.1.31 | REPLACE THE PAYLOAD SHIELD | S | 3 | LCPL |
| 9816.1.32 | REPLACE THE RATO PLATES | S | 3 | LCPL |
| 9816.1.33 | REPLACE THE BATTERY EMERGENCY UNIT (BEU) | S | 3 | LCPL |
| 9816.1.34 | REPLACE THE LIGHT CONTROL UNIT (LCU) | S | 3 | LCPL |
| 9816.1.35 | REPLACE THE NOSE LIGHT ASSEMBLY | S | 3 | LCPL |
| 9816.1.36 | REPLACE THE STROBE LIGHT ASSEMBLY | S | 3 | LCPL |
| 9816.1.37 | REPLACE THE LEFT/RIGHT VERTICAL STABILIZER LIGHTS ASSEMBLY | S | 3 | LCPL |
| 9816.1.38 | REPLACE THE LEFT/RIGHT WING LIGHT ASSEMBLIES | S | 3 | LCPL |
| 9816.2.1 | PERFORM ENGINE PRE-START CHECKS | S | 3 | LCPL |
| 9816.2.2 | START THE ENGINE | S | 3 | LCPL |
| 9816.2.3 | PERFORM ENGINE RUN-UP | S | 3 | LCPL |
| 9816.2.4 | TROUBLESHOOT THE ENGINE | S | 3 | LCPL |
| 9816.2.5 | ADJUST THE THROTTLE CABLE | S | 3 | LCPL |
| 9816.2.6 | INSPECT THE MAGNETO GAP | S | 3 | LCPL |
| 9816.2.7 | REPLACE THE MAGNETO | S | 3 | LCPL |
| 9816.2.8 | PRE-LUBRICATE THE ENGINE | S | 3 | LCPL |
| 9816.2.9 | REPLACE SPARK PLUGS | S | 3 | LCPL |
| 9816.2.10 | INSPECT THE ENGINE AFTER OVER- TEMPERATURE CONDITION | S | 3 | LCPL |
| 9816.2.11 | REPLACE THE ENGINE | S | 3 | LCPL |
| 9816.2.12 | INSPECT THE PROPELLER | S | 3 | LCPL |
| 9816.2.13 | REPAIR PROPELLER | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|----------------|--|----|------|---------------|
| 9816.2.14 | REPLACE THE PROPELLER | S | 3 | LCPL |
| 9816.2.15 | PREPARE THE ENGINE FOR STORAGE | S | 3 | LCPL |
| 9816.2.16 | REPLACE THE AIR INTAKE COVERS | S | 3 | LCPL |
| 9816.2.17 | REPLACE THE REGULATOR ELECTRICAL UNIT (REU) | S | 3 | LCPL |
| 9816.2.18 | REPLACE THE GENERATOR ELECTRICAL UNIT (GEU) | S | 3 | LCPL |
| 9816.2.19 | REPLACE THE ENGINE RPM/CUTOFF UNIT (ERC) | S | 3 | LCPL |
| 9816.2.20 | REPLACE THE ENGINE THERMOCOUPLE HARNESS (ETH) | S | 3 | LCPL |
| 9816.2.21 | REPLACE THE ENGINE THERMOCOUPLE UNIT (ETC) | S | 3 | LCPL |
| 9816.2.22 | REPLACE THE ENGINE CUT TRAP | S | 3 | LCPL |
| 9816.3.1 | OPERATE THE UAV REFUELING DEVICE | S | 3 | LCPL |
| 9816.3.2 | RE-FUEL THE UAV | S | 3 | LCPL |
| 9816.3.3 | REPLACE THE FUEL LEVEL SENSOR | S | 3 | LCPL |
| 9816.3.4 | REPLACE THE FUEL INLET FILTER | S | 3 | LCPL |
| 9816.3.5 | REPLACE THE IN-LINE FUEL FILTER | S | 3 | LCPL |
| 9816.3.6 | REPLACE THE FUEL DRAIN VALVE | S | 3 | LCPL |
| 9816.3.7 | REPLACE OVERFLOW ASSEMBLY | S | 3 | LCPL |
| 9816.3.8 | REPLACE FUEL SUPPLY PIPES | S | 3 | LCPL |
| 9816.3.9 | INSPECT FUEL LINES | S | 3 | LCPL |
| 9816.3.10 | REPAIR MINOR FUEL TANK DAMAGE | S | 3 | LCPL |
| 9816.3.11 | REPLACE THE FUEL PUMP | S | 3 | LCPL |
| 9816.4.1 | PERFORM A MKD-200 VISUAL INSPECTION | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT SUST | Grade |
|---------------------|--|----|--------------|-------|
| 9816.4.2 | PERFORM A MKD-400 VISUAL INSPECTION | S | 3 | LCPL |
| 9816.4.3 | CLEAN THE MKD-200 PAYLOAD SYSTEM | S | 3 | LCPL |
| 9816.4.4 | CLEAN THE MKD-400 PAYLOAD SYSTEM | S | 3 | LCPL |
| 9816.4.5 | PERFORM MKD-400 PREFLIGHT PROCEDURES | S | 3 | LCPL |
| 9816.4.6 | PERFORM MKD-400 POST-FLIGHT PROCEDURES | S | 3 | LCPL |
| 9816.4.7 | REPLACE THE MKD-200 STABILIZED PAYLOAD ASSEMBLY | S | 3 | LCPL |
| 9816.4.8 | REPLACE THE MKD-400 STABILIZED PAYLOAD ASSEMBLY | S | 3 | LCPL |
| 9816.5.1 | REPLACE THE AILERON SERVOS | S | 3 | LCPL |
| 9816.5.2 | ALIGN THE AILERONS | S | 3 | LCPL |
| 9816.5.3 | REPLACE THE ELEVATOR SERVO | S | 3 | LCPL |
| 9816.5.4 | ALIGN THE ELEVATORS | S | 3 | LCPL |
| 9816.5.5 | REPLACE THE RUDDER SERVO | S | 3 | LCPL |
| 9816.5.6 | ALIGN THE RUDDER | S | 3 | LCPL |
| 9816.5.7 | REPLACE PUSH-PULL ROD FOR TYPE 1 RUDDER | S | 3 | LCPL |
| 9816.5.8 | REPLACE THE NOSE WHEEL SERVO | S | 3 | LCPL |
| 9816.5.9 | ALIGN THE NOSE WHEEL | S | 3 | LCPL |
| 9816.5.10 | REPLACE THE THROTTLE SERVO | S | 3 | LCPL |
| 9816.5.11 | ADJUST THE THROTTLE CABLE | S | 3 | LCPL |
| 9816.5.12 | MAINTAIN THE SERVO LINKAGES | S | 3 | LCPL |
| 9816.6.1 | LUBRICATE THE LAUNCH STAND LANDING GEAR SUPPORT | S | 3 | LCPL |
| 9816.6.2 | ADJUST THE NOSE WHEEL SUPPORT LEG | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|---------------------|---|-----|------|---------------|
| 9816.6.3 | REPLACE THE FIRE CONTROL BOX BATTERIES | S | 3 | LCPL |
| 9816.6.4 | PREPARE THE RATO LAUNCH STAND FOR THE UAV | S | 3 | LCPL |
| 9816.6.5 | INSTALL THE RATO LAUNCH CONTROL EQUIPMENT | S | 3 | LCPL |
| 9816.6.6 | MOUNT THE UAV ON THE RATO LAUNCH STAND | S | 3 | LCPL |
| 9816.6.7 | UP-LOAD THE RATO BOTTLE | S | 3 | LCPL |
| 9816.6.8 | PERFORM RATO CHECKS | S | 3 | LCPL |
| 9816.6.9 | PREPARE THE UAV FOR LAUNCH | S | 3 | LCPL |
| 9816.6.10 | PERFORM THE RATO LAUNCH SYSTEM PREFLIGHT CHECK | S | 3 | LCPL |
| 9816.6.11 | LAUNCH THE UAV | S | 3 | LCPL |
| 9816.6.12 | PERFORM RATO ABORT PROCEDURES | S | 3 | LCPL |
| 9816.6.13 | PERFORM ROCKET MOTOR MISFIRE PROCEDURES | S | 3 | LCPL |
| 9816.6.14 | PERFORM ROCKET MOTOR DISPOSAL PROCEDURES | S | 3 | LCPL |
| 9816.6.15 | REPAIR RATO STAND | S | 3 | LCPL |
| 9816.7.1 | BLEED THE AIR TANK | S/3 | | LCPL |
| 9816.7.2 | SERVICE BENDIX AIR DRYERS | S/3 | | LCPL |
| 9816.7.3 | SERVICE THE REGULATOR UNIT | S/3 | | LCPL |
| 9816.7.4 | LUBRICATE THE DRUM AND BASE STRUCTURE ASSEMBLIES | S/3 | | LCPL |
| 9816.7.5 | INSPECT THE AIR TURBINE STARTER LUBRICATING OIL | S/3 | | LCPL |
| 9816.7.6 | INSPECT THE STRAP ASSEMBLY | S/3 | | LCPL |
| 9816.7.7 | MAINTAIN THE LAUNCH RAILS | S/3 | | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT SUST | Grade |
|---------------------|--|------|--------------|-------|
| 9816.7.8 | INSPECT THE HOLDBACK MECHANISM | S/3 | | LCPL |
| 9816.7.9 | MAINTAIN THE DRUM | S/3 | | LCPL |
| 9816.7.10 | INSPECT THE AIR TURBINE STARTER FOR OIL LEAKAGE | S/3 | | LCPL |
| 9816.7.11 | INSPECT THE OIL MAGNETIC PLUG | S/12 | | LCPL |
| 9816.7.12 | INSPECT AIR TANK PRESSURIZATION | S/3 | | LCPL |
| 9816.7.13 | INSPECT THE PRESSURE GAUGES AND RELIEF VALVE | S/3 | | LCPL |
| 9816.7.14 | INSPECT THE CATCH-RELEASE ASSEMBLY | S/3 | | LCPL |
| 9816.7.15 | INSPECT THE EXTENSION AND LOADING RAMP | S/3 | | LCPL |
| 9816.7.16 | ADJUST THE AIR PRESSURE REGULATOR | S/3 | | LCPL |
| 9816.7.17 | INSPECT THE LAUNCHER FOR CORROSION | S/3 | | LCPL |
| 9816.7.18 | PERFORM A LAUNCHER FUNCTIONAL TEST | S/3 | | LCPL |
| 9816.7.19 | PERFORM A LAUNCHER SYSTEM OPERATIONAL TEST | S/3 | | LCPL |
| 9816.7.20 | REPLACE PRESSURE REGULATOR V1 | S/12 | | LCPL |
| 9816.7.21 | REPLACE THE PRESSURE GAUGE | S/12 | | LCPL |
| 9816.7.22 | REPLACE ON/OFF BALL VALVE V3 | S/12 | | LCPL |
| 9816.7.23 | REPLACE DRAIN VALVE V4 | S/12 | | LCPL |
| 9816.7.24 | REPLACE RELIEF VALVE V2 | S/3 | | LCPL |
| 9816.7.25 | REPLACE THE AIR SUPPLY HOSE | S/12 | | LCPL |
| 9816.7.26 | REPLACE MANUAL MAIN VALVE V6 | S/12 | | LCPL |
| 9816.7.27 | REPLACE CONTROL ON/OFF BALL VALVE V5 | S/12 | | LCPL |
| 9816.7.28 | REPLACE CONTROL VALVE V7 | S/12 | | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|----------------|---|------|------|---------------|
| 9816.7.29 | REPLACE LAUNCH VALVE V8 | S/12 | | LCPL |
| 9816.7.30 | REPLACE SOLENOID ACTUATED PRE- LOAD VALVE V9 | S/12 | | LCPL |
| 9816.7.31 | REPLACE THE DRIVE CONTROL SILENCER | S/12 | | LCPL |
| 9816.7.32 | REPLACE THE DRIVE CONTROL PRESSURE GAUGE | S/12 | | LCPL |
| 9816.7.33 | REPLACE THE DRUM ASSEMBLY | S/12 | | LCPL |
| 9816.7.34 | REPLACE THE AIR TURBINE STARTER | S/12 | | LCPL |
| 9816.7.35 | REPLACE THE LAUNCH STRAP | S/3 | | LCPL |
| 9816.7.36 | REPLACE THE HOLDBACK MECHANISM SPRING CAPSULES | S/12 | | LCPL |
| 9816.7.37 | REPLACE THE HOLDBACK MECHANISM | S/12 | | LCPL |
| 9816.7.38 | REPLACE THE LATCH ASSEMBLY | S/12 | | LCPL |
| 9816.7.39 | REPLACE THE SUPPORT ASSEMBLY | S/12 | | LCPL |
| 9816.8.1 | PERFORM THE LAUNCHER SYSTEM DAILY INSPECTION | S/12 | | LCPL |
| 9816.8.2 | PERFORM TROUBLESHOOTING/FAULT SYMPTOM ANALYSIS | S/12 | | LCPL |
| 9816.8.3 | ADJUST THE MANUAL MAIN VALVE V6 MICROSWITCH | S/12 | | LCPL |
| 9816.8.4 | ADJUST THE HOLDBACK MICROSWITCH | S/12 | | LCPL |
| 9816.8.5 | REPLACE MICROSWITCH MS2 AND MS3 | S/12 | | LCPL |
| 9816.8.6 | REPLACE THE HOLDBACK MICROSWITCH | S/12 | | LCPL |
| 9816.8.7 | REPLACE THE MANUAL MAIN VALVE V6 MICROSWITCH | S/12 | | LCPL |
| 9816.9.1 | MAINTAIN THE TOWING TROLLEY WHEELS | S | 3 | LCPL |
| 9816.9.2 | MAINTAIN THE WING ASSEMBLY STAND WHEELS | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT SUST | Grade |
|---------------------|---|----|--------------|-------|
| 9816.9.3 | MAINTAIN THE FUSELAGE STAND WHEELS | S | 3 | LCPL |
| 9816.9.4 | MAINTAIN THE REFUELING DEVICE | S | 3 | LCPL |
| 9816.9.5 | DOCUMENT ALL MAINTENANCE ACTIVITIES | S | 3 | LCPL |
| 9816.9.6 | MAINTAIN THE NITROGEN CHARGING STATION | S | 3 | LCPL |
| 9816.10.1 | PERFORM DAILY INSPECTIONS | | S/3 | LCPL |
| 9816.10.2 | PERFORM A LAUNCHER PRE-LAUNCH CHECK | | S/3 | LCPL |
| 9816.10.3 | PERFORM A PNEUMATIC LAUNCHER PREFLIGHT CHECK | | S/3 | LCPL |
| 9816.10.4 | PERFORM A ROCKET ASSISTED TAKEOFF (RATO) LAUNCHER PREFLIGHT CHECK | | S/3 | LCPL |
| 9816.10.5 | LAUNCH THE UAV | | S/3 | LCPL |
| 9816.10.6 | PERFORM A LAUNCHER POST-LAUNCH CHECK | | S/3 | LCPL |
| 9816.10.7 | PERFORM A SHIPBOARD PIONEER ARRESTING SYSTEM (SPARS) POST- RECOVERY CHECK | | S/3 | LCPL |
| 9816.10.8 | INSPECT THE UAV AFTER NET RECOVERY | | S/3 | LCPL |
| 9816.11.1 | SET UP THE MECHANICAL WEIGHT AND BALANCE DEVICE | S | 3 | LCPL |
| 9816.11.2 | SET UP THE ELECTRONIC WEIGHT AND BALANCE DEVICE | S | 3 | LCPL |
| 9816.11.3 | PERFORM UAV WEIGHING PROCEDURES | S | 3 | LCPL |
| 9816.12.1 | TEAR DOWN THE UAV SYSTEM | S | 3 | LCPL |
| 9816.12.2 | PREPARE THE LAUNCHER FOR STORAGE | | S/3 | LCPL |
| 9816.12.3 | SECURE THE UAV SYSTEM | S | 3 | LCPL |
| 9816.12.4 | DE-FUEL/PURGE THE UAV | S | 3 | LCPL |

ENCLOSURE (3)

| TASK NUMBER | TASK | FS | MOJT | Grade SUST |
|---|--|----|------|---------------|
| MOS 9817, REMOTE RECEIVING STATION (RRS) OPERATOR | | | | |
| 9817.1.1 | PERFORM PRE-OPERATIONAL PROCEDURES | S | 3 | LCPL |
| 9817.1.2 | PERFORM GROUND OPERATIONAL PROCEDURES | S | 3 | LCPL |
| 9817.1.3 | PERFORM AIR OPERATIONAL PROCEDURES | | S/3 | LCPL |
| 9817.1.4 | PERFORM POST MISSION TASKS | S | 3 | LCPL |
| 9817.2.1 | CLEAN THE REMOTE RECEIVING STATION | S | 3 | LCPL |
| 9817.2.2 | PERFORM PREVENTIVE MAINTENANCE PROCEDURES | S | 3 | LCPL |

ENCLOSURE (3)

COMMON ITS LISTING

1. General. This enclosure provides a cross reference of ITS's common to more than one billet within the UAV field. It is designed to assist the trainer in consolidating training for common tasks. Essential subjects ITS's are not listed since all Marines, regardless of MOS or grade, must be able to achieve the standard for those tasks.
2. Format. The enclosure lists the Task Title for each common task within the UAV field. Common Task Numbers follow each Task Title.

TASK NUMBER EXAMPLE: 9808.1.1

- o 9808 refers to the applicable Ground Control Station (GCS) Internal Pilot.
- o .1 refers to the Duty Area within the MOS; in this case, "Mission Planning".
- o .1 refers to the Task; in this case, "Complete Mission Data Sheet".

TASK TITLE _____ COMMON TASK NUMBERS _____

ADJUST THE THROTTLE CABLE
9816.2.5 9816.5.11

LAUNCH THE UAV
9808.3.2 9816.10.5 9816.6.11

PERFORM POST MISSION TASKS
9807.2.6 9808.5.2 9813.2.10 9814.4.4 9817.1.4

REPLACE LIGHT BULBS IN PUSHBUTTONS
9815.5.22 9815.7.13

REPLACE PUSHBUTTONS
9815.5.20 9815.7.11

REPLACE THE ENCODER/DECODER CAGE (EDC)
9815.2.9 9815.7.23

ENCLOSURE (4)

MCO 1510.82A
16 Jan 95

TASK TITLE _____ COMMON TASK NUMBERS _____

REPLACE THE G-BAND OMNI ANTENNA
9815.1.15 9815.2.18 9815.7.15

REPLACE THE G-BAND RECEIVER (RXC)
9815.2.14 9815.7.19

REPLACE THE MICROPROCESSOR CONTROLLED AUTOTRACKER (MCAT)
9815.2.8 9815.7.22

REPLACE THE UHF ANTENNA
9815.2.19 9815.7.16

ENCLOSURE (4)

TRAINING SUPPORT

1. This enclosure identifies training support in four categories for each MOS or the OccFld as a whole. Some of the support items are identified by tasks, groups of tasks, or for the entire task list as follows:

Appendix A: Training Devices, Simulators, and Training Aids

Appendix B: Training Equipment

Appendix C: Ammunition, Explosives, and Pyrotechnics

Appendix D: Training Materials

2. If support identified in any appendix does not apply, the appendix will be included stating: "DOES NOT APPLY TO THIS MOS/OCCFLD."

ENCLOSURE (5)

TRAINING DEVICES, SIMULATORS, AND TRAINING AIDS
THIS ENCLOSURE IS NOT APPLICABLE

Appendix A to
ENCLOSURE (5)

5-A-1

TRAINING EQUIPMENT

THIS ENCLOSURE IS NOT APPLICABLE

Appendix B to
ENCLOSURE (5)

5-B-1

AMMUNITION, EXPLOSIVES, AND PYROTECHNICS

THIS ENCLOSURE IS NOT APPLICABLE

Appendix C to
ENCLOSURE (5)

5-C-1

TRAINING MATERIALS

APPROPRIATE ORDERS FROM HIGHER HEADQUARTERS
MNT0.1.1

APPROPRIATE ORDERS FROM HIGHER HEADQUARTERS.
MNT0.2.1

APPROPRIATE RANGE AND SAFETY REGULATIONS
9807.1.1

APPROPRIATE SOP'S
MNT0.1.1 MNT0.2.1 MNT0.2.2 MNT0.2.4

APPROPRIATE TECHNICAL MANUALS
MNT0.1.1

APPROPRIATE TECHNICAL PUBLICATIONS
MNT0.2.1 MNT0.2.2 MNT0.2.3

APPROPRIATE UNIT SOP'S
MNT0.2.3

Appendix D to
ENCLOSURE (5)

MCO 1510.82A
16 Jan 95

| | | | | |
|-----------|-----------|-----------|-----------|-----------|
| FM 3-22-1 | | | | |
| 9808.3.1 | 9808.3.10 | 9808.3.2 | 9808.3.3 | 9808.3.4 |
| 9808.3.5 | 9808.3.6 | 9808.3.7 | 9808.3.8 | 9808.3.9 |
| 9808.4.1 | 9808.4.2 | 9808.4.3 | 9808.5.1 | 9808.5.2 |
| 9813.1.1 | 9813.1.10 | 9813.1.11 | 9813.1.12 | 9813.1.2 |
| 9813.1.3 | 9813.1.4 | 9813.1.5 | 9813.1.6 | 9813.1.7 |
| 9813.1.8 | 9813.1.9 | 9813.2.1 | 9813.2.10 | 9813.2.2 |
| 9813.2.3 | 9813.2.4 | 9813.2.5 | 9813.2.6 | 9813.2.7 |
| 9813.2.8 | 9813.2.9 | 9814.1.1 | 9814.1.2 | 9814.1.3 |
| 9814.1.4 | 9814.2.1 | 9814.2.2 | 9814.2.3 | 9814.2.4 |
| 9814.3.1 | 9814.3.2 | 9814.3.3 | 9814.3.4 | 9814.3.5 |
| 9814.3.6 | 9814.3.7 | 9814.3.8 | 9814.3.9 | 9814.4.1 |
| 9814.4.2 | 9814.4.3 | 9814.4.4 | 9814.5.1 | 9814.5.2 |
| 9814.5.3 | 9814.5.4 | 9814.5.5 | 9815.1.1 | 9815.1.10 |
| 9815.1.11 | 9815.1.12 | 9815.1.13 | 9815.1.14 | 9815.1.15 |
| 9815.1.16 | 9815.1.17 | 9815.1.18 | 9815.1.19 | 9815.1.2 |
| 9815.1.20 | 9815.1.21 | 9815.1.3 | 9815.1.4 | 9815.1.5 |
| 9815.1.6 | 9815.1.7 | 9815.1.8 | 9815.1.9 | 9815.2.1 |
| 9815.2.10 | 9815.2.11 | 9815.2.12 | 9815.2.13 | 9815.2.14 |
| 9815.2.15 | 9815.2.16 | 9815.2.17 | 9815.2.18 | 9815.2.19 |
| 9815.2.2 | 9815.2.20 | 9815.2.21 | 9815.2.22 | 9815.2.23 |
| 9815.2.24 | 9815.2.25 | 9815.2.26 | 9815.2.27 | 9815.2.28 |

Appendix D to
ENCLOSURE (5)

| | | | | |
|-----------|-----------|-----------|-----------|-----------|
| 9815.2.29 | 9815.2.3 | 9815.2.30 | 9815.2.31 | 9815.2.32 |
| 9815.2.33 | 9815.2.34 | 9815.2.35 | 9815.2.4 | 9815.2.5 |
| 9815.2.6 | 9815.2.7 | 9815.2.8 | 9815.2.9 | 9815.3.1 |
| 9815.3.10 | 9815.3.11 | 9815.3.12 | 9815.3.2 | 9815.3.3 |
| 9815.3.4 | 9815.3.5 | 9815.3.6 | 9815.3.7 | 9815.3.8 |
| 9815.3.9 | 9815.4.1 | 9815.4.10 | 9815.4.2 | 9815.4.3 |
| 9815.4.4 | 9815.4.5 | 9815.4.6 | 9815.4.7 | 9815.4.8 |
| 9815.4.9 | 9815.5.1 | 9815.5.10 | 9815.5.11 | 9815.5.12 |
| 9815.5.13 | 9815.5.14 | 9815.5.15 | 9815.5.16 | 9815.5.17 |
| 9815.5.18 | 9815.5.19 | 9815.5.2 | 9815.5.20 | 9815.5.21 |
| 9815.5.22 | 9815.5.3 | 9815.5.4 | 9815.5.5 | 9815.5.6 |
| 9815.5.7 | 9815.5.8 | 9815.5.9 | 9815.6.1 | 9815.6.2 |
| 9815.6.3 | 9815.6.4 | 9815.6.5 | 9815.6.6 | 9815.6.7 |
| 9815.6.8 | 9815.6.9 | 9815.7.1 | 9815.7.10 | 9815.7.11 |
| 9815.7.12 | 9815.7.13 | 9815.7.14 | 9815.7.15 | 9815.7.16 |
| 9815.7.17 | 9815.7.18 | 9815.7.19 | 9815.7.2 | 9815.7.20 |
| 9815.7.21 | 9815.7.22 | 9815.7.23 | 9815.7.24 | 9815.7.25 |
| 9815.7.26 | 9815.7.27 | 9815.7.28 | 9815.7.29 | 9815.7.3 |
| 9815.7.30 | 9815.7.31 | 9815.7.32 | 9815.7.33 | 9815.7.4 |
| 9815.7.5 | 9815.7.6 | 9815.7.7 | 9815.7.8 | 9815.7.9 |
| 9815.8.1 | 9815.8.2 | 9815.8.3 | 9815.8.4 | 9815.8.5 |
| 9816.1.1 | 9816.1.10 | 9816.1.11 | | |

MCO 1510.82A
16 Jan 95

| | | | | |
|-----------|-----------|-----------|-----------|-----------|
| 9816.1.12 | 9816.1.13 | 9816.1.14 | 9816.1.15 | 9816.1.16 |
| 9816.1.17 | 9816.1.18 | 9816.1.19 | 9816.1.2 | 9816.1.20 |
| 9816.1.21 | 9816.1.22 | 9816.1.23 | 9816.1.24 | 9816.1.25 |
| 9816.1.26 | 9816.1.27 | 9816.1.28 | 9816.1.29 | 9816.1.3 |
| 9816.1.30 | 9816.1.31 | 9816.1.32 | 9816.1.33 | 9816.1.34 |
| 9816.1.35 | 9816.1.36 | 9816.1.37 | 9816.1.38 | 9816.1.4 |
| 9816.1.5 | 9816.1.6 | 9816.1.7 | 9816.1.8 | 9816.1.9 |
| 9816.10.1 | 9816.10.2 | 9816.10.3 | 9816.10.4 | 9816.10.5 |
| 9816.10.6 | 9816.10.7 | 9816.10.8 | 9816.11.1 | 9816.11.2 |
| 9816.11.3 | 9816.12.1 | 9816.12.2 | 9816.12.3 | 9816.12.4 |
| 9816.2.1 | 9816.2.10 | 9816.2.11 | 9816.2.12 | 9816.2.13 |
| 9816.2.14 | 9816.2.15 | 9816.2.16 | 9816.2.17 | 9816.2.18 |
| 9816.2.19 | 9816.2.2 | 9816.2.20 | 9816.2.21 | 9816.2.22 |
| 9816.2.3 | 9816.2.4 | 9816.2.5 | 9816.2.6 | 9816.2.7 |
| 9816.2.8 | 9816.2.9 | 9816.3.1 | 9816.3.10 | 9816.3.11 |
| 9816.3.2 | 9816.3.3 | 9816.3.4 | 9816.3.5 | 9816.3.6 |
| 9816.3.7 | 9816.3.8 | 9816.3.9 | 9816.4.1 | 9816.4.2 |
| 9816.4.3 | 9816.4.4 | 9816.4.5 | 9816.4.6 | 9816.4.7 |
| 9816.4.8 | 9816.5.1 | 9816.5.10 | 9816.5.11 | 9816.5.12 |
| 9816.5.2 | 9816.5.3 | 9816.5.4 | 9816.5.5 | 9816.5.6 |
| 9816.5.7 | 9816.5.8 | 9816.5.9 | 9816.6.1 | 9816.6.10 |
| 9816.6.11 | 9816.6.12 | 9816.6.13 | | |

Appendix D to
ENCLOSURE (5)

| | | | | |
|-----------|-----------|-----------|-----------|-----------|
| 9816.6.14 | 9816.6.15 | 9816.6.2 | 9816.6.3 | 9816.6.4 |
| 9816.6.5 | 9816.6.6 | 9816.6.7 | 9816.6.8 | 9816.6.9 |
| 9816.7.1 | 9816.7.10 | 9816.7.11 | 9816.7.12 | 9816.7.13 |
| 9816.7.14 | 9816.7.15 | 9816.7.16 | 9816.7.17 | 9816.7.18 |
| 9816.7.19 | 9816.7.2 | 9816.7.20 | 9816.7.21 | 9816.7.22 |
| 9816.7.23 | 9816.7.24 | 9816.7.25 | 9816.7.26 | 9816.7.27 |
| 9816.7.28 | 9816.7.29 | 9816.7.3 | 9816.7.30 | 9816.7.31 |
| 9816.7.32 | 9816.7.33 | 9816.7.34 | 9816.7.35 | 9816.7.36 |
| 9816.7.37 | 9816.7.38 | 9816.7.39 | 9816.7.4 | 9816.7.5 |
| 9816.7.6 | 9816.7.7 | 9816.7.8 | 9816.7.9 | 9816.8.1 |
| 9816.8.2 | 9816.8.3 | 9816.8.4 | 9816.8.5 | 9816.8.6 |
| 9816.8.7 | 9816.9.1 | 9816.9.2 | 9816.9.3 | 9816.9.4 |
| 9816.9.5 | 9816.9.6 | 9817.1.1 | 9817.1.2 | 9817.1.3 |
| 9817.1.4 | 9817.2.1 | 9817.2.2 | MNTO.1.1 | MNTO.1.2 |
| MNTO.2.1 | MNTO.2.2 | MNTO.2.3 | MNTO.2.4 | |

FMFM 3-22-1

| | | | | |
|----------|----------|----------|----------|----------|
| 9807.1.1 | 9807.1.2 | 9807.1.3 | 9807.1.4 | 9807.2.1 |
| 9807.2.2 | 9807.2.3 | 9807.2.4 | 9807.2.5 | 9807.2.6 |
| 9808.1.1 | 9808.1.2 | 9808.1.3 | 9808.2.1 | 9808.2.2 |
| 9808.2.3 | 9808.2.4 | 9808.2.5 | | |

MCO 1510.82A
16 Jan 95

| | | | | |
|-----------|----------|----------|-----------|----------|
| FMFM 5-60 | | | | |
| 9807.1.1 | 9807.1.2 | 9807.1.4 | 9807.2.1 | 9807.2.2 |
| 9807.2.3 | 9807.2.4 | 9807.2.5 | 9807.2.6 | 9808.1.1 |
| 9808.1.2 | 9808.1.3 | 9808.2.1 | 9808.2.2 | 9808.2.3 |
| 9808.2.4 | 9808.2.5 | 9808.3.1 | 9808.3.10 | 9808.3.2 |
| 9808.3.3 | 9808.3.4 | 9808.3.5 | 9808.3.6 | 9808.3.7 |
| 9808.3.8 | 9808.3.9 | 9808.4.1 | 9808.4.2 | 9808.4.3 |
| 9808.5.1 | 9808.5.2 | | | |

| | | | | |
|----------|----------|----------|----------|----------|
| FMFM 6-8 | | | | |
| 9807.1.2 | 9807.2.3 | 9807.2.4 | 9808.3.8 | 9813.2.6 |

Appendix D to
ENCLOSURE (5)

JUATOPS MANUAL

| | | | | |
|-----------|-----------|-----------|----------|----------|
| 9807.2.1 | 9807.2.2 | 9807.2.3 | 9807.2.4 | 9807.2.5 |
| 9807.2.6 | 9808.1.1 | 9808.1.2 | 9808.1.3 | 9808.2.1 |
| 9808.2.2 | 9808.2.3 | 9808.2.4 | 9808.2.5 | 9808.3.1 |
| 9808.3.10 | 9808.3.2 | 9808.3.3 | 9808.3.4 | 9808.3.5 |
| 9808.3.6 | 9808.3.7 | 9808.3.8 | 9808.3.9 | 9808.4.1 |
| 9808.4.2 | 9808.4.3 | 9808.5.1 | 9808.5.2 | 9813.1.1 |
| 9813.1.10 | 9813.1.11 | 9813.1.12 | 9813.1.2 | 9813.1.3 |
| 9813.1.4 | 9813.1.5 | 9813.1.6 | 9813.1.7 | 9813.1.8 |
| 9813.1.9 | 9813.2.1 | 9813.2.10 | 9813.2.2 | 9813.2.3 |
| 9813.2.4 | 9813.2.5 | 9813.2.6 | 9813.2.7 | 9813.2.8 |
| 9813.2.9 | 9814.1.1 | 9814.1.2 | 9814.1.3 | 9814.1.4 |
| 9814.2.1 | 9814.2.2 | 9814.2.3 | 9814.2.4 | 9814.3.1 |
| 9814.3.2 | 9814.3.3 | 9814.3.4 | 9814.3.5 | 9814.3.6 |
| 9814.3.7 | 9814.3.8 | 9814.3.9 | 9814.4.1 | 9814.4.2 |
| 9814.4.3 | 9814.4.4 | | | |

JUAVTOPS MANUAL.

9807.1.3

JUAVTOPS.

9807.1.4

LOCAL MRC DECKS.

9816.10.1

LOCAL SOP.

9808.3.7

MCO 4790.2D.

9816.9.5

MCO 1510.82A
16 Jan 95

MCO P4400.150

MNTO.2.4

MCO P4790.2 (MIMMS FIELD PROCEDURE MANUAL)

MNTO.1.2

MCO P4790.2 (MIMMS FIELD LEVEL PROCEDURES MANUAL)

MNTO.2.2

MCO P4790.2

MNTO.2.3

MISSION TASKING DOCUMENTS

9807.1.1

MRC 6-1.3

9815.7.1

MRC A-1-P10-RPV

9816.1.6 9816.1.7

MRC A1-1-P10-RPV-6-1

9814.5.1

MRC A1-1-P10-RPV-6-1.6

9814.5.5

MRC A1-1-P10-RPV-6-3.2

9814.5.4

MRC DECK.

9815.2.6

NAA1-SRRPV-GCS-500

| | | | | |
|----------|----------|-----------|-----------|-----------|
| 9808.2.2 | 9808.2.3 | 9808.2.4 | 9808.2.5 | 9808.4.1 |
| 9808.4.2 | 9808.5.1 | 9813.1.10 | 9813.1.11 | 9813.1.12 |
| 9813.1.2 | 9813.1.3 | 9813.1.4 | 9813.1.5 | 9813.1.6 |
| 9813.1.7 | 9813.1.8 | 9813.1.9 | 9813.2.10 | 9813.2.2 |
| 9813.2.3 | 9813.2.4 | 9813.2.5 | 9813.2.6 | 9813.2.7 |
| 9813.2.8 | 9813.2.9 | 9814.1.1 | | |

NAA1-SRRPV-GCS-500, PARA 2-10.9.

9808.3.9

NAA1-SRRPV-GCS-500.

9808.3.5 9808.3.6 9808.3.7

Appendix D to
ENCLOSURE (5)

NAA1-SRRPV-RRS-9008

| | | | | |
|----------|----------|----------|----------|----------|
| 9817.1.1 | 9817.1.2 | 9817.1.3 | 9817.1.4 | 9817.2.1 |
|----------|----------|----------|----------|----------|

NAA1-SRRPV-RRS-9008.

9817.2.2

NAVAIR A1-SRRPV-GCS-500

| | | | | |
|----------|----------|----------|----------|----------|
| 9815.4.3 | 9815.4.4 | 9815.8.1 | 9815.8.3 | 9815.8.4 |
| 9815.8.5 | | | | |

NAVAIR A1-SRRPV-GCS-510

| | | | | |
|-----------|-----------|-----------|-----------|-----------|
| 9815.2.1 | 9815.2.10 | 9815.2.11 | 9815.2.12 | 9815.2.13 |
| 9815.2.14 | 9815.2.15 | 9815.2.16 | 9815.2.17 | 9815.2.18 |
| 9815.2.19 | 9815.2.2 | 9815.2.20 | 9815.2.21 | 9815.2.22 |
| 9815.2.23 | 9815.2.24 | 9815.2.25 | 9815.2.26 | 9815.2.27 |
| 9815.2.28 | 9815.2.29 | 9815.2.3 | 9815.2.30 | 9815.2.31 |
| 9815.2.32 | 9815.2.35 | 9815.2.4 | 9815.2.5 | 9815.2.6 |
| 9815.2.7 | 9815.2.8 | 9815.2.9 | 9815.5.1 | 9815.5.10 |
| 9815.5.11 | 9815.5.12 | 9815.5.13 | 9815.5.14 | 9815.5.15 |
| 9815.5.16 | 9815.5.17 | 9815.5.18 | 9815.5.19 | 9815.5.2 |
| 9815.5.20 | 9815.5.21 | 9815.5.22 | 9815.5.3 | 9815.5.4 |
| 9815.5.5 | 9815.5.6 | 9815.5.7 | 9815.5.8 | 9815.5.9 |

NAVAIR A1-SRRPV-GSE-960

| | | | | |
|-----------|----------|----------|----------|----------|
| 9814.5.1 | 9814.5.2 | 9814.5.3 | 9814.5.4 | 9814.5.5 |
| 9816.12.2 | | | | |

NAVAIR A1-SRRPV-GSE-960.

| | | | | |
|----------|----------|----------|----------|----------|
| 9816.9.1 | 9816.9.2 | 9816.9.3 | 9816.9.4 | 9816.9.6 |
|----------|----------|----------|----------|----------|

Appendix D to
ENCLOSURE (5)

MCO 1510.82A
16 Jan 95

NAVAIR A1-SRRPV-LAU-800

| | | | | |
|-----------|-----------|-----------|-----------|-----------|
| 9816.10.2 | 9816.10.5 | 9816.10.6 | 9816.7.1 | 9816.7.10 |
| 9816.7.11 | 9816.7.12 | 9816.7.13 | 9816.7.14 | 9816.7.15 |
| 9816.7.16 | 9816.7.17 | 9816.7.18 | 9816.7.19 | 9816.7.2 |
| 9816.7.20 | 9816.7.21 | 9816.7.22 | 9816.7.23 | 9816.7.24 |
| 9816.7.25 | 9816.7.26 | 9816.7.27 | 9816.7.28 | 9816.7.29 |
| 9816.7.3 | 9816.7.30 | 9816.7.31 | 9816.7.32 | 9816.7.33 |
| 9816.7.34 | 9816.7.35 | 9816.7.36 | 9816.7.37 | 9816.7.38 |
| 9816.7.39 | 9816.7.4 | 9816.7.5 | 9816.7.6 | 9816.7.7 |
| 9816.7.8 | 9816.7.9 | 9816.8.1 | 9816.8.2 | 9816.8.3 |
| 9816.8.4 | 9816.8.5 | 9816.8.6 | 9816.8.7 | |

Appendix D to
ENCLOSURE (5)

NAVAIR A1-SRRPV-MMI-200

| | | | | |
|-----------|-----------|-----------|-----------|-----------|
| 9815.1.1 | 9815.1.10 | 9815.1.11 | 9815.1.12 | 9815.1.13 |
| 9815.1.14 | 9815.1.15 | 9815.1.16 | 9815.1.17 | 9815.1.18 |
| 9815.1.19 | 9815.1.2 | 9815.1.20 | 9815.1.21 | 9815.1.3 |
| 9815.1.4 | 9815.1.5 | 9815.1.6 | 9815.1.7 | 9815.1.8 |
| 9815.1.9 | 9815.3.1 | 9815.3.10 | 9815.3.11 | 9815.3.12 |
| 9815.3.2 | 9815.3.3 | 9815.3.4 | 9815.3.5 | 9815.3.6 |
| 9815.3.7 | 9815.3.8 | 9815.3.9 | 9815.4.10 | 9816.1.1 |
| 9816.1.10 | 9816.1.11 | 9816.1.12 | 9816.1.13 | 9816.1.14 |
| 9816.1.15 | 9816.1.16 | 9816.1.17 | 9816.1.18 | 9816.1.19 |
| 9816.1.2 | 9816.1.20 | 9816.1.21 | 9816.1.22 | 9816.1.23 |
| 9816.1.24 | 9816.1.25 | 9816.1.26 | 9816.1.27 | 9816.1.28 |
| 9816.1.29 | 9816.1.3 | 9816.1.30 | 9816.1.31 | 9816.1.32 |
| 9816.1.33 | 9816.1.34 | 9816.1.35 | 9816.1.36 | 9816.1.37 |
| 9816.1.38 | 9816.1.4 | 9816.1.5 | 9816.1.7 | 9816.1.8 |
| 9816.1.9 | 9816.12.1 | 9816.12.3 | 9816.12.4 | 9816.2.1 |
| 9816.2.10 | 9816.2.11 | 9816.2.12 | 9816.2.13 | 9816.2.14 |
| 9816.2.15 | 9816.2.16 | 9816.2.17 | 9816.2.18 | 9816.2.19 |
| 9816.2.2 | 9816.2.20 | 9816.2.21 | 9816.2.22 | 9816.2.3 |
| 9816.2.4 | 9816.2.5 | 9816.2.6 | 9816.2.7 | 9816.2.8 |
| 9816.2.9 | 9816.3.1 | 9816.3.10 | 9816.3.11 | 9816.3.2 |
| 9816.3.3 | 9816.3.4 | 9816.3.5 | 9816.3.6 | 9816.3.7 |

Appendix D to
ENCLOSURE (5)

| | | | | |
|---|-----------|-----------|-----------|-----------|
| MCO 1510.82A | | | | |
| 16 Jan 95 | | | | |
| 9816.3.8 | 9816.3.9 | 9816.4.6 | 9816.5.1 | 9816.5.10 |
| 9816.5.11 | 9816.5.12 | 9816.5.2 | 9816.5.3 | 9816.5.4 |
| 9816.5.5 | 9816.5.6 | 9816.5.7 | 9816.5.8 | 9816.5.9 |
| NAVAIR A1-SRRPV-MMI-200, PARA 4-1.11.3. | | | | |
| 9816.1.6 | | | | |
| NAVAIR A1-SRRPV-PCS-600 | | | | |
| 9815.8.2 | 9815.8.4 | 9815.8.5 | | |
| NAVAIR A1-SRRPV-PCS-610 | | | | |
| 9815.7.1 | 9815.7.10 | 9815.7.11 | 9815.7.12 | 9815.7.13 |
| 9815.7.14 | 9815.7.15 | 9815.7.16 | 9815.7.17 | 9815.7.18 |
| 9815.7.19 | 9815.7.2 | 9815.7.20 | 9815.7.21 | 9815.7.22 |
| 9815.7.23 | 9815.7.24 | 9815.7.25 | 9815.7.26 | 9815.7.27 |
| 9815.7.28 | 9815.7.29 | 9815.7.3 | 9815.7.30 | 9815.7.31 |
| 9815.7.32 | 9815.7.33 | 9815.7.4 | 9815.7.5 | 9815.7.6 |
| 9815.7.7 | 9815.7.8 | 9815.7.9 | | |
| NAVAIR A1-SRRPV-RATO-820 | | | | |
| 9816.10.4 | 9816.6.1 | 9816.6.10 | 9816.6.11 | 9816.6.12 |
| 9816.6.13 | 9816.6.14 | 9816.6.15 | 9816.6.2 | 9816.6.3 |
| 9816.6.4 | 9816.6.5 | 9816.6.6 | 9816.6.7 | 9816.6.8 |
| 9816.6.9 | | | | |
| NAVAIR A1-SRRPV-RRS-900 | | | | |
| 9815.6.1 | 9815.6.2 | 9815.6.3 | 9815.6.4 | 9815.6.5 |
| 9815.6.6 | 9815.6.7 | 9815.6.8 | 9815.6.9 | |
| NAVAIR A1-SRRPV-SRP-850 | | | | |
| 9815.4.1 | 9815.4.5 | 9815.4.7 | 9815.4.8 | 9816.4.1 |
| 9816.4.3 | 9816.4.7 | | | |

Appendix D to
ENCLOSURE (5)

NAVAIR A1-SRRPV-SRP-860
9815.4.2 9815.4.6 9815.4.9 9816.4.2 9816.4.4
9816.4.5 9816.4.6 9816.4.8

NAVAIR A1-SRRPV-WAB-400
9816.11.1 9816.11.2 9816.11.3

NAVAIR-418 (OLSP MS-004)
MNTO.1.2 MNTO.1.1 MNTO.2.1 MNTO.2.2 MNTO.2.3

NAVAIR-418 (OPERATIONAL LOGISTICS SUPPORT CONCEPT MS-004)
MNTO.2.4

OPNAV 4790.
9807.1.4

OPNAV 4790.2
9807.2.6

OPNAVINST 3750 (AVIATION SAFETY)
MNTO.1.1 MNTO.1.2 MNTO.2.1 MNTO.2.2

OPNAVINST 4790.2 (NAMP)
MNTO.1.2 MNTO.2.3 MNTO.1.1 MNTO.2.1 MNTO.2.2

OPORDER
9807.1.1

PUB #1-UAV-BB, PARA 5-2.1.5.
9816.10.7

PUB #MRC 2.1.2.
9816.7.6 9816.7.9

PUB #MRC 2.1.3
9816.7.12

PUB #MRC 2.1.4.
9816.7.8

PUB #MRC 3.2.
9816.10.3

PUB #MRC 3.2.3.
9816.7.12

PUB #MRC 3.3
9816.10.4

MCO 1510.82A
16 Jan 95

PUB #MRC 5.1.
9816.10.8

PUB #MRC 6-1.2
9815.2.34

PUB# MRC 6-1.2
9815.2.33

UNIT SOP'S
9808.1.1

UNIT T/E (CMR) AND T/O
MNTO.2.1 MNTO.2.2

UNIT T/E (CMR)
MNTO.1.1 MNTO.2.3

Appendix D to
ENCLOSURE (5)

5-D-14

INDIVIDUAL TRAINING STANDARDS FOR
MOS 9807, MISSION COMMANDER

DUTY AREA 1 - PLAN THE UAV MISSION

| | | |
|---------------|--------------------------------|-------|
| TASK 9807.1.1 | | 6-A-1 |
| | ESTABLISH MISSION REQUIREMENTS | |
| TASK 9807.1.2 | | 6-A-2 |
| | DIRECT MISSION PLANNING | |
| TASK 9807.1.3 | | 6-A-2 |
| | CONDUCT MISSION BRIEFING | |
| TASK 9807.1.4 | | 6-A-3 |
| | PERFORM PRE-FLIGHT PROCEDURES | |

DUTY AREA 2 - NORMAL FLIGHT OPERATIONS

| | | |
|---------------|--|-------|
| TASK 9807.2.1 | | 6-A-4 |
| | INITIATE TAKEOFF | |
| TASK 9807.2.2 | | 6-A-4 |
| | SUPERVISE MISSION PROGRESS | |
| TASK 9807.2.3 | | 6-A-5 |
| | CONDUCT RECON, SURVEILLANCE, TARGET ACQUISITION MISSION | |
| TASK 9807.2.4 | | 6-A-6 |
| | CONDUCT FIRE SUPPORT MISSION | |
| TASK 9807.2.5 | | 6-A-7 |
| | SUPERVISE SYSTEM MALFUNCTION OR EMERGENCY | |
| TASK 9807.2.6 | | 6-A-8 |
| | PERFORM POST MISSION TASKS | |

ENCLOSURE (6)

MOS 9808, GROUND CONTROL STATION (GCS) INTERNAL PILOT

DUTY AREA 1 - MISSION PLANNING

| | | |
|---------------|--------------------------------|-------|
| TASK 9808.1.1 | | 6-B-1 |
| | COMPLETE MISSION DATA SHEET | |
| TASK 9808.1.2 | | 6-B-1 |
| | CALCULATE UAV PERFORMANCE DATA | |
| TASK 9808.1.3 | | 6-B-2 |
| | CONDUCT UAV ROUTE PLANNING | |

DUTY AREA 2 - PRE-FLIGHT OPERATIONS

| | | |
|---------------|---|-------|
| TASK 9808.2.1 | | 6-B-3 |
| | COMPLETE THE PRE-FLIGHT CHECKLIST | |
| TASK 9808.2.2 | | 6-B-3 |
| | ENTER PRESET DATA INTO GCS | |
| TASK 9808.2.3 | | 6-B-4 |
| | CONFIGURE THE PILOT BAY FOR THE MISSION | |
| TASK 9808.2.4 | | 6-B-5 |
| | PREPARE THE PLOTTER | |
| TASK 9808.2.5 | | 6-B-6 |
| | CONFIGURE THE TCD-2000 FOR THE MISSION | |

DUTY AREA 3 - FLIGHT OPERATIONS

| | | |
|----------------|--|--------|
| TASK 9808.3.1 | | 6-B-7 |
| | START ENGINE | |
| TASK 9808.3.2 | | 6-B-8 |
| | LAUNCH THE UAV | |
| TASK 9808.3.3 | | 6-B-9 |
| | CONDUCT POST LAUNCH PROCEDURES | |
| TASK 9808.3.4 | | 6-B-9 |
| | PERFORM DISH LOCK PROCEDURES | |
| TASK 9808.3.5 | | 6-B-10 |
| | FLY THE UAV IN THE PROGRAMMED MODE | |
| TASK 9808.3.6 | | 6-B-11 |
| | FLY THE UAV IN THE MANUAL CONTROL MODE | |
| TASK 9808.3.7 | | 6-B-11 |
| | PERFORM EMERGENCY FLIGHT OPERATIONS | |
| TASK 9808.3.8 | | 6-B-12 |
| | CONDUCT RECON, SURVEILLANCE AND TARGET ACQUISITION/ FIRE SUPPORT MISSION | |
| TASK 9808.3.9 | | 6-B-13 |
| | TRANSFER UAV CONTROL TO ANOTHER CONTROL STATION | |
| TASK 9808.3.10 | | 6-B-14 |
| | EXECUTE RETURN TO BASE PROCEDURES | |

DUTY AREA 4 - RECOVERING THE UAV

| | | |
|---------------|----------------------------|--------|
| TASK 9808.4.1 | | 6-B-14 |
| | PERFORM DESCENT PROCEDURES | |

ENCLOSURE (6)

- TASK 9808.4.2 6-B-15
COMPLETE LANDING APPROACH
- TASK 9808.4.3 6-B-16
ASSIST THE EXTERNAL PILOT DURING
RECOVERY

DUTY AREA 5 - POST MISSION TASKS

- TASK 9808.5.1 6-B-17
COMPLETE POST RECOVERY PROCEDURES
- TASK 9808.5.2 6-B-17
PERFORM POST MISSION TASKS

ENCLOSURE (6)

MOS MMTO, UAV MAINTENANCE OFFICER

DUTY AREA 1 - UAV MAINTENANCE PLANNING

- TASK MNTO.1.1 6-C-1
PLAN FOR TACTICAL DEPLOYMENT OF THE UAV
SYSTEM AND MAINTENANCE PLATOON
- TASK MNTO.1.2 6-C-2
WRITE A UAV MAINTENANCE POLICY LETTER

DUTY AREA 2 - UAV MAINTENANCE OPERATIONS

- TASK MNTO.2.1 6-C-3
DEPLOY THE UAV SYSTEM AND UAV
MAINTENANCE PLATOON
- TASK MNTO.2.2 6-C-4
DIRECT UAV MAINTENANCE SHOP PROCEDURES
FOR A UAV MAINTENANCE PLATOON
- TASK MNTO.2.3 6-C-5
DIRECT UAV MAINTENANCE FOR THE
MAINTENANCE PLATOON
- TASK MNTO.2.4 6-C-6
DIRECT UAV LOGISTIC SUPPORT FOR THE UAV
UNIT

ENCLOSURE (6)

MOS 9813, GROUND CONTROL STATION (GCS) PAYLOAD OPERATOR

| | | |
|--|---|--------|
| <u>DUTY AREA 1 - PRE-OPERATIONAL/PRE-LAUNCH PROCEDURES</u> | | |
| TASK 9813.1.1 | PLAN UAV MISSION | 6-D-1 |
| TASK 9813.1.2 | CONDUCT THE BAY AUTOMATIC TEST OF STATION | 6-D-1 |
| TASK 9813.1.3 | ACTIVATE THE PRESET CONTROL MODE | 6-D-2 |
| TASK 9813.1.4 | CONDUCT PIXEL SIGHT ALIGNMENT | 6-D-3 |
| TASK 9813.1.5 | SELECT PROGRAM OPTIONS VIA MULTI-FUNCTION | 6-D-4 |
| TASK 9813.1.6 | PREPARE THE VCR-2000 FOR MISSION | 6-D-4 |
| TASK 9813.1.7 | PREPARE THE OTMP-2000 FOR MISSION | 6-D-5 |
| TASK 9813.1.8 | PREPARE THE OVC-2000 FOR MISSION | 6-D-5 |
| TASK 9813.1.9 | PREPARE THE OCD-200 FOR MISSION | 6-D-6 |
| TASK 9813.1.10 | PREPARE THE OCT-2000 FOR MISSION | 6-D-6 |
| TASK 9813.1.11 | ORIENT THE PLOTTER | 6-D-7 |
| TASK 9813.1.12 | PREPARE THE TCD-2000 FOR MISSION | 6-D-8 |
| <u>DUTY AREA 2 - PAYLOAD FLIGHT OPERATIONS</u> | | |
| TASK 9813.2.1 | OPERATE THE PLATFORM | 6-D-9 |
| TASK 9813.2.2 | OPERATE THE MOKED 200 PAYLOAD CAMERA | 6-D-9 |
| TASK 9813.2.3 | OPERATE THE MOKED 400 PAYLOAD CAMERA | 6-D-10 |
| TASK 9813.2.4 | PERFORM TARGET ACQUISITION | 6-D-10 |
| TASK 9813.2.5 | OPERATE THE PLOTTER | 6-D-11 |
| TASK 9813.2.6 | PERFORM ARTILLERY ADJUSTMENT | 6-D-12 |
| TASK 9813.2.7 | PERFORM GENERAL NAVIGATION | 6-D-12 |
| TASK 9813.2.8 | PERFORM TARGET SEARCH | 6-D-13 |
| TASK 9813.2.9 | PERFORM CAMERA GUIDE PROCEDURES | 6-D-14 |

ENCLOSURE (6)

MCO 1510.82A
16 Jan 95

TASK 9813.2.10 6-D-14
PERFORM POST MISSION TASKS

ENCLOSURE (6)

| | | |
|--|--|--------|
| MOS 9814, EXTERNAL UNMANNED AERIAL VEHICLE (UAV) OPERATOR | | |
| <u>DUTY AREA 1 - CONDUCT PRE-OPERATIONAL/PRE-LAUNCH PROCEDURES</u> | | |
| TASK 9814.1.1 | | 6-E-1 |
| | PERFORM UAV ENGINE PRE-STARTING PROCEDURES | |
| TASK 9814.1.2 | | 6-E-1 |
| | PERFORM UAV ENGINE START | |
| TASK 9814.1.3 | | 6-E-2 |
| | CONDUCT PRE-TAKEOFF CHECKS | |
| TASK 9814.1.4 | | 6-E-3 |
| | TAXI THE UAV TO THE EXTERNAL (UAV) OPERATOR POSITION | |
| <u>DUTY AREA 2 - LAUNCHING THE UAV</u> | | |
| TASK 9814.2.1 | | 6-E-3 |
| | PERFORM TAKEOFF AND INITIAL CLIMB PROCEDURES FROM A RUNWAY | |
| TASK 9814.2.2 | | 6-E-4 |
| | PERFORM TAKEOFF AND INITIAL CLIMB PROCEDURES FROM THE PNEUMATIC LAUNCHER | |
| TASK 9814.2.3 | | 6-E-5 |
| | PERFORM TAKEOFF AND INITIAL CLIMB PROCEDURES FROM THE ROCKET ASSISTED TAKEOFF (RATO) LAUNCHER | |
| TASK 9814.2.4 | | 6-E-6 |
| | TRANSFER CONTROL TO THE INTERNAL PILOT OR THE PCS OPERATOR | |
| <u>DUTY AREA 3 - CONDUCTING EMERGENCY FLIGHT OPERATIONS</u> | | |
| TASK 9814.3.1 | | 6-E-7 |
| | PERFORM EMERGENCY PROCEDURES FOR TELEMETRY FAILURE/INCORRECT DATA FROM DOWNLINK DURING DAYTIME | |
| TASK 9814.3.2 | | 6-E-7 |
| | PERFORM EMERGENCY PROCEDURES FOR TELEMETRY FAILURE/INCORRECT DATA FROM DOWNLINK DURING NIGHT | |
| TASK 9814.3.3 | | 6-E-8 |
| | PERFORM EMERGENCY PROCEDURES WHEN A FAST IDLE CONDITION OCCURS | |
| TASK 9814.3.4 | | 6-E-9 |
| | PERFORM AUTOPILOT FAILURE EMERGENCY PROCEDURES | |
| TASK 9814.3.5 | | 6-E-9 |
| | PERFORM BATTERY/GENERATOR FAILURE EMERGENCY PROCEDURES | |
| TASK 9814.3.6 | | 6-E-10 |
| | PERFORM EMERGENCY PROCEDURES FOR ENGINE MALFUNCTION IMMEDIATELY AFTER TAKEOFF | |

ENCLOSURE (6)

- TASK 9814.3.7 6-E-10
PERFORM EMERGENCY PROCEDURES WHEN AN
ENGINE MALFUNCTION OCCURS WHILE THE UAV
IS IN VISUAL RANGE
- TASK 9814.3.8 6-E-11
PERFORM PNEUMATIC LAUNCHER MISFIRE
PROCEDURES
- TASK 9814.3.9 6-E-12
PERFORM RATO MISFIRE PROCEDURES

DUTY AREA 4 - RECOVERING THE UAV

- TASK 9814.4.1 6-E-12
ASSUME CONTROL FROM THE INTERNAL PILOT
OR PCS OPERATOR
- TASK 9814.4.2 6-E-13
RECOVER THE UAV ON A RUNWAY DURING THE
DAY
- TASK 9814.4.3 6-E-14
RECOVER THE UAV ON A RUNWAY AT NIGHT
- TASK 9814.4.4 6-E-14
PERFORM POST MISSION TASKS

DUTY AREA 5 - MAINTAIN THE HOOK ARRESTING SYSTEM (HAS)

- TASK 9814.5.1 6-E-15
PERFORM A HOOK ARRESTING SYSTEM (HAS)
PREFLIGHT/DAILY INSPECTION
- TASK 9814.5.2 6-E-16
PERFORM HAS MAINTENANCE
- TASK 9814.5.3 6-E-16
PERFORM HAS LONG-TERM STORAGE PROCEDURES
- TASK 9814.5.4 6-E-17
PERFORM HAS POST-FLIGHT CHECK
- TASK 9814.5.5 6-E-17
PERFORM SETUP PROCEDURES FOR HAS

MOS 9815, ELECTRONIC/ELECTRICAL MAINTENANCE TECHNICIAN

| | | |
|--|---|--------|
| DUTY AREA 1 - MAINTAIN THE AIRFRAME ELECTRONICS SYSTEM | | |
| TASK 9815.1.1 | PERFORM THE UAV AUTOMATIC TEST | 6-F-1 |
| TASK 9815.1.2 | PERFORM THE G-Band TRANSMISSION FUNCTIONAL TEST | 6-F-1 |
| TASK 9815.1.3 | PERFORM THE G-Band RECEIVER SENSITIVITY TEST | 6-F-2 |
| TASK 9815.1.4 | PERFORM THE G-Band ANTENNA VSWR CHECK | 6-F-3 |
| TASK 9815.1.5 | PERFORM THE UHF RECEIVER SENSITIVITY TEST | 6-F-3 |
| TASK 9815.1.6 | PERFORM THE UHF ANTENNA VSWR TEST | 6-F-4 |
| TASK 9815.1.7 | PERFORM THE SPREAD SPECTRUM RECEIVER TEST | 6-F-4 |
| TASK 9815.1.8 | REPLACE THE G-Band RECEIVER UNIT (RCU) | 6-F-5 |
| TASK 9815.1.9 | REPLACE THE G-Band DIPLEXER UNIT (DCU) | 6-F-5 |
| TASK 9815.1.10 | REPLACE THE G-Band TRANSMITTER (TX) | 6-F-6 |
| TASK 9815.1.11 | REPLACE THE G-Band POWER UNIT (PCU) | 6-F-6 |
| TASK 9815.1.12 | REPLACE THE DC TO DC CONVERTER (DDC) | 6-F-7 |
| ASK 9815.1.13 | REPLACE THE +15V POWER SUPPLY MODULE | 6-F-8 |
| TASK 9815.1.14 | REPLACE THE G-Band OMNI/DIRECTIONAL ANTENNA | 6-F-8 |
| TASK 9815.1.15 | REPLACE THE G-Band OMNI ANTENNA | 6-F-9 |
| TASK 9815.1.16 | REPLACE THE UHF RECEIVER UNIT (RUU) | 6-F-9 |
| TASK 9815.1.17 | REPLACE THE IFF TRANSPONDER | 6-F-10 |
| TASK 9815.1.18 | REPLACE THE ELECTRICAL POWER SUPPLY (EPS) | 6-F-10 |
| TASK 9815.1.19 | REPLACE THE ELECTRICAL POWER SUPPLY (EPS) FUSES | 6-F-11 |

ENCLOSURE (6)

| | | |
|----------------|--|--------|
| TASK 9815.1.20 | PERFORM BATTERY EMERGENCY UNIT (BEU) PREVENTIVE MAINTENANCE | 6-F-12 |
| TASK 9815.1.21 | CHARGE/DISCHARGE THE BATTERY EMERGENCY UNIT (BEU) | 6-F-12 |

DUTY AREA 2 - MAINTAIN THE GROUND CONTROL STATION TRACKING AND
COMMUNICATIONS SYSTEM

| | | |
|----------------|--|--------|
| TASK 9815.2.1 | PERFORM A COMMUNICATIONS BAY (CBY) VISUAL INSPECTION | 6-F-13 |
| TASK 9815.2.2 | CLEAN THE COMMUNICATIONS BAY (CBY) | 6-F-13 |
| TASK 9815.2.3 | CLEAN THE TRACKING CONTROL UNIT (TCU) BAY FILTERS | 6-F-14 |
| TASK 9815.2.4 | CLEAN THE TRACKING CONTROL UNIT (TCU) VENTILATOR | 6-F-15 |
| TASK 9815.2.5 | PERFORM A TRACKING CONTROL UNIT (TCU) FUNCTIONAL AND TROUBLESHOOTING TEST | 6-F-15 |
| TASK 9815.2.6 | CONDUCT COMMUNICATIONS BAY (CBY) AUTOMATIC TESTS | 6-F-16 |
| TASK 9815.2.7 | REPLACE THE COMMUNICATIONS CONTROL BOX (CCB) | 6-F-17 |
| TASK 9815.2.8 | REPLACE THE MICROPROCESSOR CONTROLLED AUTOTRACKER (MCAT) | 6-F-17 |
| TASK 9815.2.9 | REPLACE THE ENCODER/DECODER CAGE (EDC) | 6-F-18 |
| TASK 9815.2.10 | REPLACE THE COMMUNICATIONS TEST UNIT (CTU) | 6-F-18 |
| TASK 9815.2.11 | REPLACE THE TYPICAL RACK MOUNTED DRAWER | 6-F-19 |
| TASK 9815.2.12 | REPLACE THE TRANSMITTER SPREAD SPECTRUM (TX SP/SP) | 6-F-20 |
| TASK 9815.2.13 | REPLACE THE UHF TRANSMITTER (TXUHF) | 6-F-20 |
| TASK 9815.2.14 | REPLACE THE G-Band RECEIVER (RXC) | 6-F-21 |
| TASK 9815.2.15 | REPLACE THE COMMUNICATIONS BAY (CBY) POWER SUPPLIES | 6-F-21 |
| TASK 9815.2.16 | REPLACE THE 28VDC POWER SUPPLY | 6-F-22 |
| TASK 9815.2.17 | REPLACE THE TRACKING ANTENNA | 6-F-23 |

| | | |
|---|--|--------|
| TASK 9815.2.18 | REPLACE THE G-Band OMNI ANTENNA | 6-F-23 |
| TASK 9815.2.19 | REPLACE THE UHF ANTENNA | 6-F-24 |
| TASK 9815.2.20 | PERFORM A G-Band TRANSMISSION FREQUENCY TEST | 6-F-24 |
| TASK 9815.2.21 | PERFORM A G-Band TRANSMITTER MODULATION TEST | 6-F-25 |
| TASK 9815.2.22 | PERFORM A UHF TRANSMITTER FREQUENCY TEST | 6-F-26 |
| TASK 9815.2.23 | PERFORM A UHF TRANSMITTER MODULATION TEST | 6-F-26 |
| TASK 9815.2.24 | PERFORM A G-Band TRANSMITTER BI-PHASE IN AMPLITUDE TEST | 6-F-27 |
| TASK 9815.2.25 | PERFORM A RECEIVER TM CHANNEL SENSITIVITY TEST | 6-F-27 |
| TASK 9815.2.26 | PERFORM A RECEIVER VIDEO CHANNEL SENSITIVITY TEST | 6-F-28 |
| TASK 9815.2.27 | PERFORM A G-Band TRANSMISSION POWER TEST | 6-F-29 |
| TASK 9815.2.28 | PERFORM A UHF TRANSMISSION POWER TEST | 6-F-29 |
| TASK 9815.2.29 | REPLACE THE TRACKING ANTENNA FEEDER | 6-F-30 |
| TASK 9815.2.30 | REPLACE THE ELEVATION DRIVE ASSEMBLY | 6-F-30 |
| TASK 9815.2.31 | REPLACE THE ELEVATION DRIVE ASSEMBLY CONTROL | 6-F-31 |
| TASK 9815.2.32 | PERFORM ELEVATION DRIVE ASSEMBLY PERIODIC INSPECTIONS | 6-F-31 |
| TASK 9815.2.33 | PERFORM THE GCS DAILY INSPECTION | 6-F-32 |
| TASK 9815.2.34 | PERFORM TCU DAILY INSPECTION | 6-F-33 |
| TASK 9815.2.35 | PERFORM GROUND DATA SYSTEM (GDS) INTERCOM SYSTEM MAINTENANCE | 6-F-33 |
| <u>DUTY AREA 3 - MAINTAIN THE FLIGHT CONTROL SYSTEM (SENSORS/CPA)</u> | | |
| TASK 9815.3.1 | ADJUST HEADING REPORTS | 6-F-34 |
| TASK 9815.3.2 | ADJUST THE INDICATED AIRSPEED REPORT | 6-F-34 |
| TASK 9815.3.3 | ADJUST THE ALTITUDE REPORT | 6-F-35 |

| | | |
|----------------|---|--------|
| TASK 9815.3.4 | | 6-F-35 |
| | ADJUST THE FLUX VALVE UNIT (FVU) OUTPUT | |
| TASK 9815.3.5 | | 6-F-36 |
| | ADJUST THE VERTICAL GYRO UNIT (VGU) | |
| TASK 9815.3.6 | | 6-F-37 |
| | REPLACE THE CENTRAL PROCESSING ASSEMBLY (CPA) | |
| TASK 9815.3.7 | | 6-F-37 |
| | REPLACE THE CENTRAL PROCESSING ASSEMBLY (CPA) CIRCUIT CARDS | |
| TASK 9815.3.8 | | 6-F-38 |
| | REPLACE THE FLUX VALVE UNIT (FVU) | |
| TASK 9815.3.9 | | 6-F-38 |
| | REPLACE THE VERTICAL GYRO UNIT (VGU) | |
| TASK 9815.3.10 | | 6-F-39 |
| | REPLACE THE RATE GYRO UNIT (RGU) | |
| TASK 9815.3.11 | | 6-F-40 |
| | REPLACE THE AIRSPEED TRANSDUCER UNIT (ATU) | |
| TASK 9815.3.12 | | 6-F-40 |
| | REPLACE THE BAROMETRIC PRESSURE UNIT (BPU) | |

DUTY AREA 4 - MAINTAIN PAYLOAD SYSTEMS

| | | |
|----------------|--|--------|
| TASK 9815.4.1 | | 6-F-41 |
| | PERFORM A MKD-200 FUNCTIONAL TEST | |
| TASK 9815.4.2 | | 6-F-41 |
| | PERFORM A MKD-400 FUNCTIONAL TEST | |
| TASK 9815.4.3 | | 6-F-42 |
| | PERFORM THE MKD-200 PIXEL ALIGNMENT | |
| TASK 9815.4.4 | | 6-F-42 |
| | PERFORM MKD-400 PIXEL ALIGNMENT | |
| TASK 9815.4.5 | | 6-F-43 |
| | PERFORM MKD-200 ALIGNMENT PROCEDURES | |
| TASK 9815.4.6 | | 6-F-43 |
| | TROUBLESHOOT THE MKD-400 PAYLOAD SYSTEM | |
| TASK 9815.4.7 | | 6-F-44 |
| | TROUBLESHOOT THE MKD-200 PAYLOAD SYSTEM | |
| TASK 9815.4.8 | | 6-F-44 |
| | REPLACE THE MKD-200 BUBBLE DOME | |
| TASK 9815.4.9 | | 6-F-45 |
| | ALIGN THE MKD-400 SYSTEM | |
| TASK 9815.4.10 | | 6-F-46 |
| | REPLACE THE PAYLOAD SHIELD SOLENOID ASSEMBLY | |

DUTY AREA 5 - MAINTAIN THE GROUND CONTROL SYSTEM (GCS) BAYS

| | | |
|---------------|---------------------------------|--------|
| TASK 9815.5.1 | | 6-F-46 |
| | PERFORM A GCS VISUAL INSPECTION | |
| TASK 9815.5.2 | | 6-F-47 |
| | MAINTAIN CLEANLINESS OF THE GCS | |

ENCLOSURE (6)

| | | |
|----------------|--|--------|
| TASK 9815.5.3 | | 6-F-47 |
| | SERVICE THE GROUND DATA SYSTEM (GDS) | |
| | BACKUP BATTERY PACK | |
| TASK 9815.5.4 | | 6-F-48 |
| | PERFORM GROUND CONTROL STATION (GCS) AIR | |
| | CONDITIONER (AC) PREVENTIVE MAINTENANCE | |
| TASK 9815.5.5 | | 6-F-49 |
| | CLEAN THE GROUND CONTROL STATION (GCS) | |
| | BAY FILTERS | |
| TASK 9815.5.6 | | 6-F-49 |
| | CLEAN THE GROUND CONTROL STATION (GCS) | |
| | VENTILATOR | |
| TASK 9815.5.7 | | 6-F-50 |
| | PERFORM DC/AC INVERTER FUNCTIONAL AND | |
| | TROUBLESHOOTING TESTS | |
| TASK 9815.5.8 | | 6-F-51 |
| | REPLACE A TYPICAL PAYLOAD CONTROL MODULE | |
| TASK 9815.5.9 | | 6-F-51 |
| | REPLACE PILOT CONTROL DESK (PCD) | |
| TASK 9815.5.10 | | 6-F-52 |
| | REPLACE TRACKER CONTROL DESK (TCD) | |
| TASK 9815.5.11 | | 6-F-52 |
| | REPLACE OBSERVER CONTROL DESK (OCD) | |
| | UNITS | |
| TASK 9815.5.12 | | 6-F-53 |
| | REPLACE THE PILOT DISPLAY PANEL (PDP) | |
| TASK 9815.5.13 | | 6-F-53 |
| | REPLACE THE OBSERVER VIDEO CONTROL (OVC) | |
| | PANEL | |
| TASK 9815.5.14 | | 6-F-54 |
| | TEST AND REPLACE THE PLOTTER | |
| TASK 9815.5.15 | | 6-F-55 |
| | REPLACE PILOT CONTROL TABLE (PCT) | |
| TASK 9815.5.16 | | 6-F-55 |
| | REPLACE OBSERVER CONTROL TABLE (OCT) | |
| | UNITS | |
| TASK 9815.5.17 | | 6-F-56 |
| | REPLACE PC BOARDS | |
| TASK 9815.5.18 | | 6-F-56 |
| | REPLACE THE POWER SUPPLY MODULE | |
| TASK 9815.5.19 | | 6-F-57 |
| | PERFORM GCS/TCU RDC POWER SUPPLY | |
| | ADJUSTMENT PROCEDURES | |
| TASK 9815.5.20 | | 6-F-58 |
| | REPLACE PUSHBUTTONS | |
| TASK 9815.5.21 | | 6-F-58 |
| | REPLACE LIGHT BULBS IN THE INDICATOR | |
| | LAMPS | |
| TASK 9815.5.22 | | 6-F-59 |
| | REPLACE LIGHT BULBS IN PUSHBUTTONS | |

ENCLOSURE (6)

DUTY AREA 6 - MAINTAIN THE REMOTE RECEIVING STATION (RRS)

| | | |
|---------------|---|--------|
| TASK 9815.6.1 | | 6-F-60 |
| | PERFORM A REMOTE RECEIVING STATION GENERAL CHECK | |
| TASK 9815.6.2 | | 6-F-60 |
| | PERFORM FAULT LOCALIZATION AND ISOLATION | |
| TASK 9815.6.3 | | 6-F-61 |
| | REPLACE THE DIRECTIONAL ANTENNA | |
| TASK 9815.6.4 | | 6-F-61 |
| | REPLACE THE PEDESTAL MOTOR ELECTRICAL BRUSHES | |
| TASK 9815.6.5 | | 6-F-62 |
| | REPLACE THE RECEIVER UNIT | |
| TASK 9815.6.6 | | 6-F-63 |
| | REPLACE THE FRONT PANEL ASSEMBLY | |
| TASK 9815.6.7 | | 6-F-63 |
| | REPLACE THE POWER SUPPLY BOX ASSEMBLY (PSBA) | |
| TASK 9815.6.8 | | 6-F-64 |
| | REPLACE THE COMMAND PANEL | |
| TASK 9815.6.9 | | 6-F-64 |
| | REPLACE THE OMNI ANTENNA | |

DUTY AREA 7 - MAINTAIN THE PORTABLE CONTROL STATION

| | | |
|----------------|--|--------|
| TASK 9815.7.1 | | 6-F-65 |
| | PERFORM A PORTABLE CONTROL STATION (PCS) DAILY INSPECTION | |
| TASK 9815.7.2 | | 6-F-66 |
| | CLEAN THE PORTABLE CONTROL STATION (PCS) | |
| TASK 9815.7.3 | | 6-F-66 |
| | CLEAN THE EDAK CASE FILTER | |
| TASK 9815.7.4 | | 6-F-67 |
| | SERVICE THE PCS BACKUP BATTERY PACK | |
| TASK 9815.7.5 | | 6-F-67 |
| | REPLACE THE 28 VOLT POWER SUPPLY | |
| TASK 9815.7.6 | | 6-F-68 |
| | PERFORM A TROUBLESHOOTING/FUNCTIONAL TEST FOR THE ELECTRONIC POWER SUPPLY SYSTEM | |
| TASK 9815.7.7 | | 6-F-68 |
| | REPLACE CASE-MOUNTED UNITS | |
| TASK 9815.7.8 | | 6-F-69 |
| | REPLACE THE CONTROL TABLE | |
| TASK 9815.7.9 | | 6-F-70 |
| | REPLACE THE DESK UNIT | |
| TASK 9815.7.10 | | 6-F-70 |
| | REPLACE PRINTED CIRCUIT (PC) BOARDS | |
| TASK 9815.7.11 | | 6-F-71 |
| | REPLACE PUSHBUTTONS | |
| TASK 9815.7.12 | | 6-F-71 |
| | REPLACE LIGHT BULBS IN INDICATOR LAMPS | |
| TASK 9815.7.13 | | 6-F-72 |
| | REPLACE LIGHT BULBS IN PUSHBUTTONS | |

ENCLOSURE (6)

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| TASK 9815.7.14 | REPLACE THE G-Band DIRECTIONAL ANTENNA | 6-F-72 |
| TASK 9815.7.15 | REPLACE THE G-Band OMNI ANTENNA | 6-F-73 |
| TASK 9815.7.16 | REPLACE THE UHF ANTENNA | 6-F-74 |
| TASK 9815.7.17 | REPLACE THE RF BOX | 6-F-74 |
| TASK 9815.7.18 | REPLACE THE RF PEDESTAL | 6-F-75 |
| TASK 9815.7.19 | REPLACE THE G-Band RECEIVER (RXC) | 6-F-75 |
| TASK 9815.7.20 | REPLACE THE G-Band TRANSMITTER (TX SP/SP) | 6-F-76 |
| TASK 9815.7.21 | REPLACE THE UHF TRANSMITTER (TX UHF) | 6-F-76 |
| TASK 9815.7.22 | REPLACE THE MICROPROCESSOR CONTROLLED AUTOTRACKER (MCAT) | 6-F-77 |
| TASK 9815.7.23 | REPLACE THE ENCODER/DECODER CAGE (EDC) | 6-F-78 |
| TASK 9815.7.24 | REPLACE THE COMMUNICATION CONTROL BOX (CCB) | 6-F-78 |
| TASK 9815.7.25 | PERFORM A PCS G-Band TRANSMISSION FREQUENCY TEST | 6-F-79 |
| TASK 9815.7.26 | PERFORM A PCS G-Band TRANSMITTER MODULATION TEST | 6-F-79 |
| TASK 9815.7.27 | PERFORM A PCS UHF TRANSMITTER FREQUENCY TEST | 6-F-80 |
| TASK 9815.7.28 | PERFORM A PCS UHF TRANSMITTER MODULATION TEST | 6-F-81 |
| TASK 9815.7.29 | PERFORM A PCS TRANSMITTER BI-PHASE IN AMPLITUDE TEST | 6-F-81 |
| TASK 9815.7.30 | PERFORM A PCS RECEIVER TM CHANNEL SENSITIVITY TEST | 6-F-82 |
| TASK 9815.7.31 | PERFORM A PCS RECEIVER VIDEO CHANNEL SENSITIVITY TEST | 6-F-83 |
| TASK 9815.7.32 | PERFORM A PCS G-Band TRANSMISSION POWER TEST | 6-F-83 |
| TASK 9815.7.33 | PERFORM A PCS UHF TRANSMISSION POWER TEST | 6-F-84 |

ENCLOSURE (6)

MCO 1510.82A
16 Jan 95

DUTY AREA 8 - DEPLOY THE GROUND CONTROL SYSTEM (GCS), PORTABLE
CONTROL STATION (PCS) AND THE TRACKING AND COMMUNICATIONS UNIT
(TCU)

TASK 9815.8.1 6-F-85
DEPLOY THE GROUND CONTROL SYSTEM (GCS)

TASK 9815.8.2 6-F-85
DEPLOY THE PORTABLE CONTROL STATION
(PCS)

TASK 9815.8.3 6-F-86
DEPLOY THE TRACKING AND COMMUNICATIONS
UNIT (TCU)

TASK 9815.8.4 6-F-86
INSPECT THE SYSTEM EXTERNAL CABLING

TASK 9815.8.5 6-F-87
PREPARE FOR MOVEMENT

ENCLOSURE (6)

MOS 9816, MECHANICAL MAINTENANCE TECHNICIAN

DUTY AREA 1 - MAINTAIN THE AIRFRAME

| | | |
|----------------|--|--------|
| TASK 9816.1.1 | | 6-G-1 |
| | ASSEMBLE THE UAV | |
| TASK 9816.1.2 | | 6-G-1 |
| | DISASSEMBLE THE UAV | |
| TASK 9816.1.3 | | 6-G-2 |
| | PERFORM UAV SPECIAL INSPECTIONS | |
| TASK 9816.1.4 | | 6-G-2 |
| | PERFORM UAV PREFLIGHT CHECKS | |
| TASK 9816.1.5 | | 6-G-3 |
| | PERFORM THE IFF TRANSPONDER TEST | |
| TASK 9816.1.6 | | 6-G-4 |
| | PERFORM UAV POST-FLIGHT CHECKS | |
| TASK 9816.1.7 | | 6-G-4 |
| | INSPECT THE UAV AFTER HARD LANDING | |
| TASK 9816.1.8 | | 6-G-5 |
| | REPAIR DAMAGE TO FIBERGLASS SKIN | |
| TASK 9816.1.9 | | 6-G-6 |
| | REPAIR DAMAGE TO THE POLYURETHANE CORE | |
| TASK 9816.1.10 | | 6-G-6 |
| | REPAIR DAMAGE TO THE Balsa WOOD CORE | |
| TASK 9816.1.11 | | 6-G-7 |
| | REPAIR FIBERGLASS SKIN COATED WITH DOPE | |
| TASK 9816.1.12 | | 6-G-7 |
| | INSPECT UAV WINGS | |
| TASK 9816.1.13 | | 6-G-8 |
| | REPLACE UAV WINGS | |
| TASK 9816.1.14 | | 6-G-8 |
| | INSPECT THE TAIL ASSEMBLY | |
| TASK 9816.1.15 | | 6-G-9 |
| | REPLACE THE TAIL ASSEMBLY | |
| TASK 9816.1.16 | | 6-G-9 |
| | REPLACE BOOMS | |
| TASK 9816.1.17 | | 6-G-10 |
| | INSPECT VERTICAL STABILIZERS | |
| TASK 9816.1.18 | | 6-G-11 |
| | REPLACE THE RIGHT VERTICAL STABILIZER | |
| TASK 9816.1.19 | | 6-G-11 |
| | REPLACE THE LEFT VERTICAL STABILIZER | |
| TASK 9816.1.20 | | 6-G-12 |
| | PERFORM NOSE LANDING GEAR PREVENTIVE MAINTENANCE | |
| TASK 9816.1.21 | | 6-G-12 |
| | REPLACE THE NOSE LANDING GEAR | |
| TASK 9816.1.22 | | 6-G-13 |
| | PERFORM MAIN LANDING GEAR PREVENTIVE MAINTENANCE | |

ENCLOSURE (6)

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| TASK 9816.1.23 | REPLACE THE MAIN LANDING GEAR | 6-G-13 |
| TASK 9816.1.24 | REPLACE THE MAIN LANDING GEAR WHEELS | 6-G-14 |
| TASK 9816.1.25 | REPLACE THE MAIN LANDING GEAR TIRES | 6-G-14 |
| TASK 9816.1.26 | INSPECT THE ARRESTING HOOK ASSEMBLY | 6-G-15 |
| TASK 9816.1.27 | REPLACE THE ARRESTING HOOK | 6-G-15 |
| TASK 9816.1.28 | REPLACE THE CATCH-RELEASE MECHANISM | 6-G-16 |
| TASK 9816.1.29 | INSPECT THE LAUNCHER GUIDES | 6-G-16 |
| TASK 9816.1.30 | REPLACE THE LAUNCHER GUIDES | 6-G-17 |
| TASK 9816.1.31 | REPLACE THE PAYLOAD SHIELD | 6-G-17 |
| TASK 9816.1.32 | REPLACE THE RATO PLATES | 6-G-18 |
| TASK 9816.1.33 | REPLACE THE BATTERY EMERGENCY UNIT (BEU) | 6-G-18 |
| TASK 9816.1.34 | REPLACE THE LIGHT CONTROL UNIT (LCU) | 6-G-19 |
| TASK 9816.1.35 | REPLACE THE NOSE LIGHT ASSEMBLY | 6-G-19 |
| TASK 9816.1.36 | REPLACE THE STROBE LIGHT ASSEMBLY | 6-G-20 |
| TASK 9816.1.37 | REPLACE THE LEFT/RIGHT VERTICAL STABILIZER LIGHTS ASSEMBLY | 6-G-21 |
| TASK 9816.1.38 | REPLACE THE LEFT/RIGHT WING LIGHT ASSEMBLIES | 6-G-21 |

DUTY AREA 2 - MAINTAIN THE ENGINE/PROPULSION SYSTEM

| | | |
|---------------|---------------------------------|--------|
| TASK 9816.2.1 | PERFORM ENGINE PRE-START CHECKS | 6-G-22 |
| TASK 9816.2.2 | START THE ENGINE | 6-G-23 |
| TASK 9816.2.3 | PERFORM ENGINE RUN-UP | 6-G-23 |
| TASK 9816.2.4 | TROUBLESHOOT THE ENGINE | 6-G-24 |
| TASK 9816.2.5 | ADJUST THE THROTTLE CABLE | 6-G-24 |
| TASK 9816.2.6 | INSPECT THE MAGNETO GAP | 6-G-25 |
| TASK 9816.2.7 | REPLACE THE MAGNETO | 6-G-25 |
| TASK 9816.2.8 | PRE-LUBRICATE THE ENGINE | 6-G-26 |

ENCLOSURE (6)

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| TASK 9816.2.9 | | 6-G-26 |
| | REPLACE SPARK PLUGS | |
| TASK 9816.2.10 | | 6-G-27 |
| | INSPECT THE ENGINE AFTER OVER- TEMPERATURE CONDITION | |
| TASK 9816.2.11 | | 6-G-28 |
| | REPLACE THE ENGINE | |
| TASK 9816.2.12 | | 6-G-28 |
| | INSPECT THE PROPELLER | |
| TASK 9816.2.13 | | 6-G-29 |
| | REPAIR PROPELLER | |
| TASK 9816.2.14 | | 6-G-29 |
| | REPLACE THE PROPELLER | |
| TASK 9816.2.15 | | 6-G-30 |
| | PREPARE THE ENGINE FOR STORAGE | |
| TASK 9816.2.16 | | 6-G-30 |
| | REPLACE THE AIR INTAKE COVERS | |
| TASK 9816.2.17 | | 6-G-31 |
| | REPLACE THE REGULATOR ELECTRICAL UNIT (REU) | |
| TASK 9816.2.18 | | 6-G-32 |
| | REPLACE THE GENERATOR ELECTRICAL UNIT (GEU) | |
| TASK 9816.2.19 | | 6-G-32 |
| | REPLACE THE ENGINE RPM/CUTOFF UNIT (ERC) | |
| TASK 9816.2.20 | | 6-G-33 |
| | REPLACE THE ENGINE THERMOCOUPLE HARNESS (ETH) | |
| TASK 9816.2.21 | | 6-G-33 |
| | REPLACE THE ENGINE THERMOCOUPLE UNIT (ETC) | |
| TASK 9816.2.22 | | 6-G-34 |
| | REPLACE THE ENGINE CUT TRAP | |

DUTY AREA 3 - MAINTAIN THE FUEL SYSTEM

| | | |
|---------------|----------------------------------|--------|
| TASK 9816.3.1 | | 6-G-35 |
| | OPERATE THE UAV REFUELING DEVICE | |
| TASK 9816.3.2 | | 6-G-35 |
| | RE-FUEL THE UAV | |
| TASK 9816.3.3 | | 6-G-36 |
| | REPLACE THE FUEL LEVEL SENSOR | |
| TASK 9816.3.4 | | 6-G-36 |
| | REPLACE THE FUEL INLET FILTER | |
| TASK 9816.3.5 | | 6-G-37 |
| | REPLACE THE IN-LINE FUEL FILTER | |
| TASK 9816.3.6 | | 6-G-37 |
| | REPLACE THE FUEL DRAIN VALVE | |
| TASK 9816.3.7 | | 6-G-38 |
| | REPLACE OVERFLOW ASSEMBLY | |
| TASK 9816.3.8 | | 6-G-39 |
| | REPLACE FUEL SUPPLY PIPES | |
| TASK 9816.3.9 | | 6-G-39 |
| | INSPECT FUEL LINES | |

| | | |
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| TASK 9816.3.10 | REPAIR MINOR FUEL TANK DAMAGE | 6-G-40 |
| TASK 9816.3.11 | REPLACE THE FUEL PUMP | 6-G-40 |

DUTY AREA 4 - MAINTAIN UAV PAYLOAD SYSTEMS

| | | |
|---------------|---|--------|
| TASK 9816.4.1 | PERFORM A MKD-200 VISUAL INSPECTION | 6-G-41 |
| TASK 9816.4.2 | PERFORM A MKD-400 VISUAL INSPECTION | 6-G-41 |
| TASK 9816.4.3 | CLEAN THE MKD-200 PAYLOAD SYSTEM | 6-G-42 |
| TASK 9816.4.4 | CLEAN THE MKD-400 PAYLOAD SYSTEM | 6-G-43 |
| TASK 9816.4.5 | PERFORM MKD-400 PREFLIGHT PROCEDURES | 6-G-43 |
| TASK 9816.4.6 | PERFORM MKD-400 POST-FLIGHT PROCEDURES | 6-G-44 |
| TASK 9816.4.7 | REPLACE THE MKD-200 STABILIZED PAYLOAD ASSEMBLY | 6-G-44 |
| TASK 9816.4.8 | REPLACE THE MKD-400 STABILIZED PAYLOAD ASSEMBLY | 6-G-45 |

DUTY AREA 5 - MAINTAIN THE FLIGHT CONTROL SYSTEM (SERVORS AND FLIGHT SURFACES)

| | | |
|----------------|---|--------|
| TASK 9816.5.1 | REPLACE THE AILERON SERVOS | 6-G-46 |
| TASK 9816.5.2 | ALIGN THE AILERONS | 6-G-46 |
| TASK 9816.5.3 | REPLACE THE ELEVATOR SERVO | 6-G-47 |
| TASK 9816.5.4 | ALIGN THE ELEVATORS | 6-G-47 |
| TASK 9816.5.5 | REPLACE THE RUDDER SERVO | 6-G-48 |
| TASK 9816.5.6 | ALIGN THE RUDDER | 6-G-49 |
| TASK 9816.5.7 | REPLACE PUSH-PULL ROD FOR TYPE 1 RUDDER | 6-G-49 |
| TASK 9816.5.8 | REPLACE THE NOSE WHEEL SERVO | 6-G-50 |
| TASK 9816.5.9 | ALIGN THE NOSE WHEEL | 6-G-50 |
| TASK 9816.5.10 | REPLACE THE THROTTLE SERVO | 6-G-51 |
| TASK 9816.5.11 | ADJUST THE THROTTLE CABLE | 6-G-51 |
| TASK 9816.5.12 | MAINTAIN THE SERVO LINKAGES | 6-G-52 |

DUTY AREA 6 - MAINTAIN THE ROCKER ASSISTED TAKE OFF (RATO) LAUNCH SYSTEM

| | | |
|----------------|---|--------|
| TASK 9816.6.1 | | 6-G-53 |
| | LUBRICATE THE LAUNCH STAND LANDING GEAR SUPPORT | |
| TASK 9816.6.2 | | 6-G-53 |
| | ADJUST THE NOSE WHEEL SUPPORT LEG | |
| TASK 9816.6.3 | | 6-G-54 |
| | REPLACE THE FIRE CONTROL BOX BATTERIES | |
| TASK 9816.6.4 | | 6-G-54 |
| | PREPARE THE RATO LAUNCH STAND FOR THE UAV | |
| TASK 9816.6.5 | | 6-G-55 |
| | INSTALL THE RATO LAUNCH CONTROL EQUIPMENT | |
| TASK 9816.6.6 | | 6-G-55 |
| | MOUNT THE UAV ON THE RATO LAUNCH STAND | |
| TASK 9816.6.7 | | 6-G-56 |
| | UP-LOAD THE RATO BOTTLE | |
| TASK 9816.6.8 | | 6-G-57 |
| | PERFORM RATO CHECKS | |
| TASK 9816.6.9 | | 6-G-57 |
| | PREPARE THE UAV FOR LAUNCH | |
| TASK 9816.6.10 | | 6-G-58 |
| | PERFORM THE RATO LAUNCH SYSTEM PREFLIGHT CHECK | |
| TASK 9816.6.11 | | 6-G-58 |
| | LAUNCH THE UAV | |
| TASK 9816.6.12 | | 6-G-59 |
| | PERFORM RATO ABORT PROCEDURES | |
| TASK 9816.6.13 | | 6-G-60 |
| | PERFORM ROCKET MOTOR MISFIRE PROCEDURES | |
| TASK 9816.6.14 | | 6-G-60 |
| | PERFORM ROCKET MOTOR DISPOSAL PROCEDURES | |
| TASK 9816.6.15 | | 6-G-61 |
| | REPAIR RATO STAND | |

DUTY AREA 7 - MAINTAIN THE PNEUMATIC LAUNCH SYSTEM

| | | |
|---------------|--|--------|
| TASK 9816.7.1 | | 6-G-62 |
| | BLEED THE AIR TANK | |
| TASK 9816.7.2 | | 6-G-62 |
| | SERVICE BENDIX AIR DRYERS | |
| TASK 9816.7.3 | | 6-G-63 |
| | SERVICE THE REGULATOR UNIT | |
| TASK 9816.7.4 | | 6-G-63 |
| | LUBRICATE THE DRUM AND BASE STRUCTURE ASSEMBLIES | |
| TASK 9816.7.5 | | 6-G-64 |
| | INSPECT THE AIR TURBINE STARTER LUBRICATING OIL | |
| TASK 9816.7.6 | | 6-G-64 |
| | INSPECT THE STRAP ASSEMBLY | |

ENCLOSURE (6)

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| TASK 9816.7.7 | MAINTAIN THE LAUNCH RAILS | 6-G-65 |
| TASK 9816.7.8 | INSPECT THE HOLDBACK MECHANISM | 6-G-65 |
| TASK 9816.7.9 | MAINTAIN THE DRUM | 6-G-66 |
| TASK 9816.7.10 | INSPECT THE AIR TURBINE STARTER FOR OIL LEAKAGE | 6-G-67 |
| TASK 9816.7.11 | INSPECT THE OIL MAGNETIC PLUG | 6-G-67 |
| TASK 9816.7.12 | INSPECT AIR TANK PRESSURIZATION | 6-G-68 |
| TASK 9816.7.13 | INSPECT THE PRESSURE GAUGES AND RELIEF VALVE | 6-G-69 |
| TASK 9816.7.14 | INSPECT THE CATCH-RELEASE ASSEMBLY | 6-G-69 |
| TASK 9816.7.15 | INSPECT THE EXTENSION AND LOADING RAMP | 6-G-70 |
| TASK 9816.7.16 | ADJUST THE AIR PRESSURE REGULATOR | 6-G-70 |
| TASK 9816.7.17 | INSPECT THE LAUNCHER FOR CORROSION | 6-G-71 |
| TASK 9816.7.18 | PERFORM A LAUNCHER FUNCTIONAL TEST | 6-G-71 |
| TASK 9816.7.19 | PERFORM A LAUNCHER SYSTEM OPERATIONAL TEST | 6-G-72 |
| TASK 9816.7.20 | REPLACE PRESSURE REGULATOR V1 | 6-G-73 |
| TASK 9816.7.21 | REPLACE THE PRESSURE GAUGE | 6-G-74 |
| TASK 9816.7.22 | REPLACE ON/OFF BALL VALVE V3 | 6-G-74 |
| TASK 9816.7.23 | REPLACE DRAIN VALVE V4 | 6-G-75 |
| TASK 9816.7.24 | REPLACE RELIEF VALVE V2 | 6-G-75 |
| TASK 9816.7.25 | REPLACE THE AIR SUPPLY HOSE | 6-G-76 |
| TASK 9816.7.26 | REPLACE MANUAL MAIN VALVE V6 | 6-G-77 |
| TASK 9816.7.27 | REPLACE CONTROL ON/OFF BALL VALVE V5 | 6-G-77 |
| TASK 9816.7.28 | REPLACE CONTROL VALVE V7 | 6-G-78 |
| TASK 9816.7.29 | REPLACE LAUNCH VALVE V8 | 6-G-78 |
| TASK 9816.7.30 | REPLACE SOLENOID ACTUATED PRE-LOAD VALVE V9 | 6-G-79 |

ENCLOSURE (6)

- TASK 9816.7.31 6-G-79
REPLACE THE DRIVE CONTROL SILENCER
- TASK 9816.7.32 6-G-80
REPLACE THE DRIVE CONTROL PRESSURE GAUGE
- TASK 9816.7.33 6-G-81
REPLACE THE DRUM ASSEMBLY
- TASK 9816.7.34 6-G-81
REPLACE THE AIR TURBINE STARTER
- TASK 9816.7.35 6-G-82
REPLACE THE LAUNCH STRAP
- TASK 9816.7.36 6-G-82
REPLACE THE HOLDBACK MECHANISM SPRING CAPSULES
- TASK 9816.7.37 6-G-83
REPLACE THE HOLDBACK MECHANISM
- TASK 9816.7.38 6-G-83
REPLACE THE LATCH ASSEMBLY
- TASK 9816.7.39 6-G-84
REPLACE THE SUPPORT ASSEMBLY

DUTY AREA 8 - MAINTAIN THE PNEUMATIC LAUNCHER CONTROL SYSTEMS

- TASK 9816.8.1 6-G-85
PERFORM THE LAUNCHER SYSTEM DAILY INSPECTION
- TASK 9816.8.2 6-G-85
PERFORM TROUBLESHOOTING/FAULT SYMPTOM ANALYSIS
- TASK 9816.8.3 6-G-86
ADJUST THE MANUAL MAIN VALVE V6 MICROSWITCH
- TASK 9816.8.4 6-G-87
ADJUST THE HOLDBACK MICROSWITCH
- TASK 9816.8.5 6-G-87
REPLACE MICROSWITCH MS2 AND MS3
- TASK 9816.8.6 6-G-88
REPLACE THE HOLDBACK MICROSWITCH
- TASK 9816.8.7 6-G-88
REPLACE THE MANUAL MAIN VALVE V6 MICROSWITCH

DUTY AREA 9 - MAINTAIN SUPPORT EQUIPMENT

- TASK 9816.9.1 6-G-89
MAINTAIN THE TOWING TROLLEY WHEELS
- TASK 9816.9.2 6-G-89
MAINTAIN THE WING ASSEMBLY STAND WHEELS
- TASK 9816.9.3 6-G-90
MAINTAIN THE FUSELAGE STAND WHEELS
- TASK 9816.9.4 6-G-91
MAINTAIN THE REFUELING DEVICE
- TASK 9816.9.5 6-G-91
DOCUMENT ALL MAINTENANCE ACTIVITIES
- TASK 9816.9.6 6-G-92
MAINTAIN THE NITROGEN CHARGING STATION

DUTY AREA 10 - CONDUCT FLIGHT OPERATIONS

| | | |
|----------------|--|--------|
| TASK 9816.10.1 | | 6-G-92 |
| | PERFORM DAILY INSPECTIONS | |
| TASK 9816.10.2 | | 6-G-93 |
| | PERFORM A LAUNCHER PRE-LAUNCH CHECK | |
| TASK 9816.10.3 | | 6-G-93 |
| | PERFORM A PNEUMATIC LAUNCHER PREFLIGHT CHECK | |
| TASK 9816.10.4 | | 6-G-94 |
| | PERFORM A ROCKET ASSISTED TAKEOFF (RATO) LAUNCHER PREFLIGHT CHECK | |
| TASK 9816.10.5 | | 6-G-95 |
| | LAUNCH THE UAV | |
| TASK 9816.10.6 | | 6-G-95 |
| | PERFORM A LAUNCHER POST-LAUNCH CHECK | |
| TASK 9816.10.7 | | 6-G-96 |
| | PERFORM A SHIPBOARD PIONEER ARRESTING SYSTEM (SPARS) POST-RECOVERY CHECK | |
| TASK 9816.10.8 | | 6-G-96 |
| | INSPECT THE UAV AFTER NET RECOVERY | |

DUTY AREA 11 - WEIGH AND BALANCE THE UAV

| | | |
|----------------|---|--------|
| TASK 9816.11.1 | | 6-G-97 |
| | SET UP THE MECHANICAL WEIGHT AND BALANCE DEVICE | |
| TASK 9816.11.2 | | 6-G-98 |
| | SET UP THE ELECTRONIC WEIGHT AND BALANCE DEVICE | |
| TASK 9816.11.3 | | 6-G-98 |
| | PERFORM UAV WEIGHING PROCEDURES | |

DUTY AREA 12 - PREPARE THE SYSTEM FOR TRANSPORT

| | | |
|----------------|----------------------------------|---------|
| TASK 9816.12.1 | | 6-G-99 |
| | TEAR DOWN THE UAV SYSTEM | |
| TASK 9816.12.2 | | 6-G-100 |
| | PREPARE THE LAUNCHER FOR STORAGE | |
| TASK 9816.12.3 | | 6-G-100 |
| | SECURE THE UAV SYSTEM | |
| TASK 9816.12.4 | | 6-G-101 |
| | DE-FUEL/PURGE THE UAV | |

MOS 9817, REMOTE RECEIVING STATION (RRS) OPERATOR

DUTY AREA 1 - OPERATIONS

- TASK 9817.1.1 6-H-1
PERFORM PRE-OPERATIONAL PROCEDURES
- TASK 9817.1.2 6-H-1
PERFORM GROUND OPERATIONAL PROCEDURES
- TASK 9817.1.3 6-H-2
PERFORM AIR OPERATIONAL PROCEDURES
- TASK 9817.1.4 6-H-3
PERFORM POST MISSION TASKS

DUTY AREA 2 - MAINTENANCE

- TASK 9817.2.1 6-H-4
CLEAN THE REMOTE RECEIVING STATION
- TASK 9817.2.2 6-H-4
PERFORM PREVENTIVE MAINTENANCE
PROCEDURES

ENCLOSURE (6)

MOS 9807, MISSION COMMANDER

DUTY AREA 1 - PLAN THE UAV MISSION

TASK: 9807.1.1 ESTABLISH MISSION REQUIREMENTS

CONDITION(S): Given a mission tasking, appropriate personal and equipment.

STANDARD: All mission data is collected to accomplish the mission tasking.

PERFORMANCE STEPS:

1. Collect mission data.
2. Determine personnel and equipment requirements, e.g., maps, RRS, liaison, payload.
3. Determine the type of mission to be flown , e.g., artillery adjustment, naval gunfire support, etc.
4. Determine communications requirements.

REFERENCE(S):

1. Appropriate Range and Safety Regulations
2. FMFM 3-22-1
3. FMFM 5-60
4. Mission Tasking Documents
5. OPORDER

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix A to
ENCLOSURE (6)

TASK: 9807.1.2 DIRECT MISSION PLANNING

CONDITION(S): Given communications with the appropriate personnel/agencies, mission tasking, safety requirements, flight restrictions, target data, weapons effects data, and a contour map.

STANDARD: Mission planning includes the selection of proper flight profile, payload, route, and nets necessary for conduct of mission.

PERFORMANCE STEPS:

1. Coordinate communication and liaison requirements.
2. Identify target types/locations.
3. Identify information collection requirements, priorities and dissemination.
4. Review friendly and enemy situations and locations.
5. Identify flight restrictions and hazards.
6. Identify primary and alternate routing and diverts.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60
3. FMFM 6-8

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9807.1.3 CONDUCT MISSION BRIEFING

CONDITION(S): Given the mission plan.

STANDARD: All elements of the mission brief are covered.

PERFORMANCE STEPS:

1. Brief the schedule and mission objectives.

2. Brief flight profile, restrictions, hazards and special considerations.

REFERENCE(S):

1. FMFM 3-22-1
2. JUAVTOPS Manual.

ADMINISTRATIVE INSTRUCTIONS:

1. Conduct brief in accordance with the reference's Mission Briefing Guide.

TASK: 9807.1.4 PERFORM PRE-FLIGHT PROCEDURES

CONDITION(S): Given a UAV system, all documentation and crew.

STANDARD: Pre-flight inspection and ground checks of all equipment involved in flight is conducted prior to take-off.

PERFORMANCE STEPS:

1. Verify maintenance documentation completeness.
2. Verify UAV system status.
3. Verify UAV preflight and ground checks.
4. Establish satisfactory communication with appropriate agencies.
5. Supervise all types of UAV takeoffs; Rolling, Pneumatic, and RATO.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60
3. JUAVTOPS.
4. OPNAV 4790.

Appendix A to
ENCLOSURE (6)

ADMINISTRATIVE INSTRUCTIONS:

1. Conduct all procedures in accordance with the references.
-

DUTY AREA 2 - NORMAL FLIGHT OPERATIONS

TASK: 9807.2.1 INITIATE TAKEOFF

CONDITION(S): Given clearance from the appropriate controlling agency and communications with the supported unit(s)/agency(ies) and flight crew.

STANDARD: The UAV is launched as scheduled.

PERFORMANCE STEPS:

1. Obtain takeoff clearance.
2. Supervise the UAV launch.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60
3. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS:

1. Conduct the launch in accordance with the reference.
-

TASK: 9807.2.2 SUPERVISE MISSION PROGRESS

CONDITION(S): Given the mission objectives and communications with the GCS crew and the supported unit(s)/agency(ies).

STANDARD: All mission objectives are accomplished.

PERFORMANCE STEPS:

1. Verify mission planning form completed.
2. Update mission tasking status.
3. Update system status.
4. Make changes to flight plan as necessary for mission accomplishment.
5. Brief crew on appropriate changes.
6. Coordinate changes with controlling and supported unit(s)/agency(ies).
7. Verify mission objectives are accomplished.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60
3. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9807.2.3 CONDUCT RECON, SURVEILLANCE, TARGET ACQUISITION MISSION

CONDITION(S): Given a reconnaissance, surveillance, target acquisition (RSTA) tasking, UAV system and crew, and communications with the GCS crew and the supported unit/agency.

STANDARD: Collect and report all requested data to the supported unit/agency.

PERFORMANCE STEPS:

1. Conduct mission planning.
2. Supervise movement of the UAV system to the operations area.
3. Collect data in accordance with the mission requirements.

4. Monitor status of the collection priorities.
5. Plan, coordinate and execute required modification to the mission profile to meet collection priorities.
6. Debrief mission efforts to appropriate units/agencies.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60
3. FMFM 6-8
4. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9807.2.4 CONDUCT FIRE SUPPORT MISSION

CONDITION(S): Given fire support tasking, firing unit, UAV system and crew, and communications with the GCS crew and the supported unit/agency.

STANDARD: All fire support objectives and requirements are accomplished.

PERFORMANCE STEPS:

1. Conduct mission planing.
2. Coordinate with the firing unit for procedures and communications requirements.
3. Monitor status of the fire support mission.
4. Direct changes to the flight profile as necessary for the accomplishment of the mission.
5. Debrief mission efforts to appropriate units/agencies.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60

- 3. FMFM 6-8
- 4. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS:

- 1. Local fire support directives are necessary for coordination and safety.

TASK: 9807.2.5 SUPERVISE SYSTEM MALFUNCTION OR EMERGENCY

CONDITION(S): Given communications with the UAV crew, a system malfunction, and/or an emergency.

STANDARD: Emergency situations are handled with minimum damage and loss of equipment.

PERFORMANCE STEPS:

- 1. Identify and isolate system or emergency malfunction.
- 2. Obtain recommendations from appropriate personnel and agencies.
- 3. Take corrective action.
- 4. Communicate the emergency situation to appropriate personnel and agencies.

REFERENCE(S):

- 1. FMFM 3-22-1
- 2. FMFM 5-60
- 3. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9807.2.6 PERFORM POST MISSION TASKS

CONDITION(S): Given a deployed UAV system and a completed mission.

STANDARD: Post mission inspections and reports are completed in a timely and accurate manner.

PERFORMANCE STEPS:

1. Conduct post mission walk around inspection.
2. Conduct mission debriefs.
3. Identify problem areas or other items of interest encountered during the mission.
4. Verify completeness of the Navflir and all maintenance documentation.
5. Prepare post-mission reports.
6. Debrief mission efforts to appropriate units/agencies.
7. Ensure dissemination of intelligence obtained during mission.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60
3. JUATOPS manual
4. OPNAV 4790.2

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix A to
ENCLOSURE (6)

MOS 9808, GROUND CONTROL STATION (GCS) INTERNAL PILOT

DUTY AREA 1 - MISSION PLANNING

TASK: 9808.1.1 COMPLETE MISSION DATA SHEET

CONDITION(S): Given a mission tasking, mission commanders guidance and a mission data form.

STANDARD: All data is accurate and the mission data sheet is complete without error.

PERFORMANCE STEPS:

1. Collect mission essential data.
2. Complete mission data sheet.
3. Verify survey data.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60
3. Unit SOP's
4. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (COMMON.TASK)

TASK: 9808.1.2 CALCULATE UAV PERFORMANCE DATA

CONDITION(S): Given metro data, mission planning forms and performance charts.

STANDARD: Calculations are accurate.

PERFORMANCE STEPS:

1. Calculate T/O data.

MCO 1510.82A
16 Jan 95

2. Calculate ascent data.
3. Calculate descent data.
4. Calculate fuel requirements.
5. Calculate UAV endurance.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60
3. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9808.1.3 CONDUCT UAV ROUTE PLANNING

CONDITION(S): Given an enemy situation, mission requirements, the location of the mission area, a compass and a map.

STANDARD: Route is consistent with the capabilities and limitations of the UAV system for mission accomplishment.

PERFORMANCE STEPS:

1. Determine and plot route of flight.
2. Ensure route complies with the established air control procedures.
3. Coordinate route with appropriate controlling agencies.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60
3. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix B to
ENCLOSURE (6)

DUTY AREA 2 - PRE-FLIGHT OPERATIONS

TASK: 9808.2.1 COMPLETE THE PRE-FLIGHT CHECKLIST

CONDITION(S): Given a deployed UAV system, pre-flight checklist, and the maintenance books.

STANDARD: All items on the pre-flight checklist are completed accurately.

PERFORMANCE STEPS:

1. Review all maintenance books for completeness.
2. Preflight UAV system.
3. Preflight generator support system.
4. Preflight PCS system.
5. Preflight GCS-2000.
6. Op-check intercom system.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60
3. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9808.2.2 ENTER PRESET DATA INTO GCS

CONDITION(S): Given the mission data sheet, metro data and the PBY.

STANDARD: All information is entered accurately and reflects the local working area.

MCO 1510.82A
16 Jan 95

PERFORMANCE STEPS:

1. Enter altimeter calibration and warning set information.
2. Enter return home information.
3. Enter navigation program.
4. Calibrate range.
5. Enter meteorological data.
6. Enter camera guidance parameters.
7. Enter geographic data.
8. Enter track calibration data.
9. Enter retrieval net data if applicable.
10. Enter UAV data.
11. Enter navigation to coordinate data.
12. Configure GPS.
13. Program mission computer.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60
3. JUATOPS manual
4. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS:

1. Enter preset information in accordance with JUATOPS checklist and appropriate sections of 03A-10.

TASK: 9808.2.3 CONFIGURE THE PILOT BAY FOR THE MISSION

CONDITION(S): Given a PBV.

Appendix B to
ENCLOSURE (6)

STANDARD: Proper adjustments are made prior to launch for mission accomplishment.

PERFORMANCE STEPS:

1. Prepare DCR.
2. Prepare pilot television monitor panel.
3. Prepare pilot display panel.
4. Prepare pilot control desk.
5. Prepare pilots control table.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60
3. JUATOPS manual
4. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS:

1. PBY should be configured in accordance with JUATOPS, NAA1-SRRPV-GCS-500 and the mission requirements.

TASK: 9808.2.4 PREPARE THE PLOTTER

CONDITION(S): Given the plotter, map(s), the TCD, and the mission plan.

STANDARD: Map(s) are installed properly and plotter information is entered accurately.

PERFORMANCE STEPS:

1. Position the map on the plotter.
2. Activate the map orientation mode.
3. Enter the map number.

4. Place the pen over a grid intersection in lower left corner of map.
5. Enter easting and northing coordinates.
6. Repeat steps 4/5 for upper left, upper right, and lower right corners of the map.
7. Verify DIAGN pushbutton lights.
8. Observe DIAGN pushbutton and path of pen.
9. Verify the coordinates displayed by digital display.
10. Verify the pen returns to park position.
11. Activate the TCU coordinate mode. (Steps 11-15 are only completed for the main map mounted on plotting surface.)
12. Enter the 6 digit easting coordinate of the TCU.
13. Enter the 7 digit northing coordinate of the TCU.
14. Verify the plotter moves to the TCU location on the map and then to park.
15. Enter the TCU altitude.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60
3. JUATOPS manual
4. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9808.2.5 CONFIGURE THE TCD-2000 FOR THE MISSION

CONDITION(S): Given the TCD.

STANDARD: The preflight checklist is completed accurately.

Appendix B to
ENCLOSURE (6)

PERFORMANCE STEPS:

1. Press the TRACK pushbutton.
2. Verify that the RUN pushbutton is lit.
3. Press STOP.
4. Verify the status of the AUTO/MAN pushbutton.
5. Verify the status of the LOC GRID/GEOGR pushbutton.
6. Verify that all warning lamps are out.

REFERENCE(S):

1. FMFM 3-22-1
2. FMFM 5-60
3. JUATOPS manual
4. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 3 - FLIGHT OPERATIONS

TASK: 9808.3.1 START ENGINE

CONDITION(S): Given preflighted, fully operational UAV system.

STANDARD: Safely start the engine.

PERFORMANCE STEPS:

1. Verify status of all preflight items.
2. Verify all required personnel are present.
3. Conduct engine start procedures.

REFERENCE(S):

1. FM 3-22-1
2. FMFM 5-60
3. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS:

1. Conduct engine start procedures in accordance with the reference.
-

TASK: 9808.3.2 LAUNCH THE UAV

CONDITION(S): Given launch equipment, the environment and an operational UAV.

STANDARD: The UAV is successfully and safely launched.

PERFORMANCE STEPS:

1. Conduct prelaunch procedures.
2. Conduct launch procedures.

REFERENCE(S):

1. FM 3-22-1
2. FMFM 5-60
3. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS:

1. Conduct RATO, rolling or pneumatic launch in accordance with the reference.
-

TASK: 9808.3.3 CONDUCT POST LAUNCH PROCEDURES

CONDITION(S): Given an airborne UAV.

STANDARD: Transition from launch to external handoff executed safely.

PERFORMANCE STEPS:

1. Relay UAV flight data to external pilot.
2. Supervise flight profile.
3. Assist in flight controllability check.
4. Ready system for dishlock.

REFERENCE(S):

1. FM 3-22-1
2. FMFM 5-60
3. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9808.3.4 PERFORM DISH LOCK PROCEDURES

CONDITION(S): Given an operating UAV system, crew, an airborne UAV, IC link the EP, the mission plan, and feedback from the UAV.

STANDARD: Hand-off procedures are executed correctly and without incident.

PERFORMANCE STEPS:

1. Conduct dishlock procedures.
2. Verify control of the UAV.
3. Ensure antennae and plotter are tracking properly.
4. Verify auto return home is updating, or continuously update manual return home.

REFERENCE(S):

1. FM 3-22-1
2. FMFM 5-60
3. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS:

1. Conduct dishlock in accordance with the reference.
-

TASK: 9808.3.5 FLY THE UAV IN THE PROGRAMMED MODE

CONDITION(S): Given an operating UAV system, crew, and an airborne UAV.

STANDARD: The program is entered correctly and fulfills mission requirements.

PERFORMANCE STEPS:

1. Plan and execute Navigation to coordinate.
2. Plan and execute programmer.
3. Plan and execute camera guide.

REFERENCE(S):

1. FM 3-22-1
2. FMFM 5-60
3. JUATOPS manual
4. NAA1-SRRPV-GCS-500.

ADMINISTRATIVE INSTRUCTIONS:

1. Plan and execute program modes in accordance with the references.
-

TASK: 9808.3.6 FLY THE UAV IN THE MANUAL CONTROL MODE

CONDITION(S): Given an operating UAV system, crew, and an airborne UAV.

STANDARD: Air vehicle is flown safely and fulfills mission requirements.

PERFORMANCE STEPS:

1. Control air vehicle using stick mode.
2. Control air vehicle using knob mode.
3. Control air vehicle using a combination of stick and knob modes.
4. Control air vehicle using auto pilot disconnect mode.

REFERENCE(S):

1. FM 3-22-1
2. FMFM 5-60
3. JUATOPS manual
4. NAA1-SRRPV-GCS-500.

ADMINISTRATIVE INSTRUCTIONS:

1. UAV is flown in accordance with the references.
-

TASK: 9808.3.7 PERFORM EMERGENCY FLIGHT OPERATIONS

CONDITION(S): Given an operating UAV system, crew, an airborne UAV and a JUATOPS checklist.

STANDARD: Emergency procedures are properly executed per published procedures and with minimal loss/damage to equipment.

PERFORMANCE STEPS:

1. Conduct simulated emergency procedures.
2. Conduct simulated system malfunctions.

3. Conduct simulated indicator malfunctions.

REFERENCE(S):

1. FM 3-22-1
2. FMFM 5-60
3. JUATOPS manual
4. NAA1-SRRPV-GCS-500.
5. Local SOP.

ADMINISTRATIVE INSTRUCTIONS:

1. Emergency procedures/malfunctions should be simulated on a regular basis.

TASK: 9808.3.8 CONDUCT RECON, SURVEILLANCE AND TARGET ACQUISITION/ FIRE SUPPORT MISSION

CONDITION(S): Given an operating UAV system, crew, a mission profile, mission commanders guidance, and an airborne UAV.

STANDARD: Position UAV to collect requested RSTA data and execute the fire support mission.

PERFORMANCE STEPS:

1. Fly mission profile.
2. Coordinate with the payload operator to position UAV in order to exploit targets.
3. Update target altitude as required.
4. Plan and execute alternate routing as directed.
5. Monitor UAV performance data.
6. Employ Camera Guide Mode as required.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. FMFM 5-60
- 3. FMFM 6-8
- 4. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9808.3.9 TRANSFER UAV CONTROL TO ANOTHER CONTROL STATION

CONDITION(S): Given an operating UAV system, PCS, GCS, crew, and an airborne UAV.

STANDARD: Proper transfer is conducted without incident and without voice communication.

PERFORMANCE STEPS:

- 1. Establish and brief transfer parameters.
- 2. Conduct transfer procedures.
- 3. Receiving station verify control of UAV.
- 4. Continue mission profile.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. FMFM 5-60
- 3. JUATOPS manual
- 4. NAA1-SRRPV-GCS-500, para 2-10.9.

ADMINISTRATIVE INSTRUCTIONS:

- 1. Utilize voice communications until proficiency is reached.
-

MCO 1510.82A
16 Jan 95

TASK: 9808.3.10 EXECUTE RETURN TO BASE PROCEDURES

CONDITION(S): Given an operating UAV system, PCS, GCS, crew, an airborne UAV, and a JUATOPS landing checklist.

STANDARD: Recover air vehicle without incident.

PERFORMANCE STEPS:

1. Execute proper entry into Airport Traffic Area and appropriate landing pattern.
2. Conduct UAV transfer to EP.
3. Relay UAV flight data to EP.
4. Ensure landing checklist is completed.

REFERENCE(S):

1. FM 3-22-1
2. FMFM 5-60
3. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 4 - RECOVERING THE UAV

TASK: 9808.4.1 PERFORM DESCENT PROCEDURES

CONDITION(S): Given an operating UAV system, crew, an airborne UAV, the PBY and feedback from the UAV.

STANDARD: Descent procedures are followed without error.

PERFORMANCE STEPS:

1. Set the Airspeed knob as required to descend.
2. Verify that the UAV engine temperature does not drop below 110 degrees C.

Appendix B to
ENCLOSURE (6)

3. Open the throttle once every 30 - 45 seconds throughout the descent.

REFERENCE(S):

1. FM 3-22-1
2. FMFM 5-60
3. JUATOPS manual
4. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (COMMON.TASK)

TASK: 9808.4.2 COMPLETE LANDING APPROACH

CONDITION(S): Given an operating UAV system, crew, an airborne UAV, the PBV, an IC link with the PO/EP, and feedback from the UAV.

STANDARD: The landing approach is accomplished per prescribed procedures and without error.

PERFORMANCE STEPS:

1. Set trimmers as required.
2. Verify that the external pilot has eye contact.
3. Verify arresting gear in place.
4. Select the TCU/UAV omni antennae.
5. Transfer UAV control to the external pilot. (Refer to task 9111.2.3.)
6. Activate the manual Return Home mode.
7. Update UAV status to the external pilot continuously.
8. Activate the Takeoff/Landing mode.
9. Direct the payload operator to deploy the Payload Shield.
10. Alert the ground crew.

Appendix B to
ENCLOSURE (6)

MCO 1510.82A
16 Jan 95

REFERENCE(S):

1. FM 3-22-1
2. FMFM 5-60
3. JUATOPS manual
4. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9808.4.3 ASSIST THE EXTERNAL PILOT DURING RECOVERY

CONDITION(S): Given an operating UAV system, crew, an airborne UAV, the PBV, an IC link with the EP, and feedback from the UAV.

STANDARD: The internal pilot maintains close coordination with the external pilot and the aircraft is safely recovered.

PERFORMANCE STEPS:

1. Communicate the UAV status with the external pilot continuously.
2. Announce engine cut at the illuminated ENG CUT warning indicator.
3. Verify that the UAV lights are extinguished.

REFERENCE(S):

1. FM 3-22-1
2. FMFM 5-60
3. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix B to
ENCLOSURE (6)

DUTY AREA 5 - POST MISSION TASKS

TASK: 9808.5.1 COMPLETE POST RECOVERY PROCEDURES

CONDITION(S): Given an operating UAV system, crew, the PBY, TBY and mission plan.

STANDARD: System shut down procedures are completed accurately.

PERFORMANCE STEPS:

1. Set the PRIM and SEC UPLINKS and UAV transmitter to OFF.
2. Turn the mission clock OFF.
3. Reset the plotter.
4. Turn the Data Cassette Recorder OFF.
5. Record the mission time, engine time, fuel expended, and any flight discrepancies.
6. Conduct system and UAV post flight inspection.
7. Ensure required system/mission documentation is complete.

REFERENCE(S):

1. FM 3-22-1
2. FMFM 5-60
3. JUATOPS manual
4. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9808.5.2 PERFORM POST MISSION TASKS

CONDITION(S): Given the debrief, the flight Log, the mission plan, and report formats.

MCO 1510.82A
16 Jan 95

STANDARD: All problems and items of interest occurring during the mission are reported accurately.

PERFORMANCE STEPS:

1. Identify any problem areas or other items of interest.
2. Prepare post-mission reports, yellow sheets, and maps.

REFERENCE(S):

1. FM 3-22-1
2. FMFM 5-60
3. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix B to
ENCLOSURE (6)

6-B-18

MOS MMTO, UAV MAINTENANCE OFFICER

DUTY AREA 1 - UAV MAINTENANCE PLANNING

TASK: MNTO.1.1 PLAN FOR TACTICAL DEPLOYMENT OF THE UAV SYSTEM
AND MAINTENANCE PLATOON

CONDITION(S): Provided a UAV system, UAV Maintenance Platoon,
mission, Commander's guidance, and references.

STANDARD: Prepare the unit for tactical deployment.

PERFORMANCE STEPS:

1. Review warning order.
2. Review Commander's guidance.
3. Establish points of contact.
4. Select site location.
 - a. Perform site reconnaissance.
 - b. Select UAV system and generator positions.
 - c. Establish survey control points.
5. Identify and prepare support requirements:
 - a. Personnel
 - b. Equipment
 - c. Utilities support
 - d. Ordnance (Rocket Assisted TakeOff - RATO)
6. Coordinate frequency deconfliction.
7. Coordinate UAV spare parts block.
8. Provide input for operational plan.
9. Submit embark requirements.
10. Project UAV maintenance flight requirements.

Appendix C to
ENCLOSURE (6)

MCO 1510.82A
16 Jan 95

11. Determine security and defense requirements.

REFERENCE(S): FM 3-22-1

UNIT T/E (CMR)
NAVAIR-418 (OLSP MS-004)
OPNAVINST 4790.2 (NAMP)
OPNAVINST 3750 (AVIATION SAFETY)
APPROPRIATE TECHNICAL MANUALS
APPROPRIATE SOP'S
APPROPRIATE ORDERS FROM HIGHER HEADQUARTERS
ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: MNT0.1.2 WRITE A UAV MAINTENANCE POLICY LETTER

CONDITION(S): Provided a mission, T/O, T/E, directives from higher headquarters and references.

STANDARD: The UAV Maintenance Policy Letter will prescribe and standardize the maintenance instructions for the unit in accordance with the commander's guidance and the references.

PERFORMANCE STEPS:

1. Analyze mission, directives, policy guidance and references.
2. Draft UAV Maintenance Policy Letter.
3. Submit to Commanding Officer for signature.

REFERENCE(S): FM 3-22-1

OPNAVINST 4790.2 (NAMP)
MCO P4790.2 (MIMMS FIELD PROCEDURE MANUAL)
NAVAIR-418 (OLSP MS-004)

Appendix C to
ENCLOSURE (6)

OPNAVINST 3750 (AVIATION SAFETY)

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 2 - UAV MAINTENANCE OPERATIONS

TASK: MNT0.2.1 DEPLOY THE UAV SYSTEM AND UAV MAINTENANCE PLATOON

CONDITION(S): Provided a mission, equipment, personnel, and references.

STANDARD: Deploy and return UAV maintenance personnel and equipment in support of the current operational plan.

PERFORMANCE STEPS:

1. Ensure personal affairs of subordinates are in order.
2. Embark personnel and equipment.
3. Arrange for material handling and transportation of special equipment.
4. Maintain security.
5. Emplace UAV system.
6. Act as Rocket Assisted TakeOff (RATO) Safety Officer
7. Maintain logistics support procedures.
8. Act as Flight Line Safety Officer.
9. Adhere to other safety requirements.
10. Ensure all system/air-vehicle calibrations are performed prior to first flights.
11. Perform system flight preparation and maintenance in order to adhere to the operational plan.
12. Provide input to a Mishap Investigation Board, AS REQUIRED.

Appendix C to
ENCLOSURE (6)

REFERENCE(S):

1. FM 3-22-1
2. UNIT T/E (CMR) AND T/O
3. OPNAVINST 4790.2 (NAMP)
4. OPNAVINST 3750 (AVIATION SAFETY)
5. NAVAIR-418 (OLSP MS-004)
6. APPROPRIATE TECHNICAL PUBLICATIONS
7. APPROPRIATE SOP'S
8. APPROPRIATE ORDERS FROM HIGHER HEADQUARTERS.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: MNTO.2.2 DIRECT UAV MAINTENANCE SHOP PROCEDURES FOR A UAV MAINTENANCE PLATOON

CONDITION(S): Provided a UAV Maintenance shop, facilities, Commander's guidance, required personnel, appropriate equipment, and references.

STANDARD: Establish procedures required for efficient shop operations in support of the unit mission.

PERFORMANCE STEPS:

1. Review SOP's.
2. Determine required shop procedures.
3. Ensure the following procedures are adhered to:
 - a. Corrective Maintenance
 - b. Preventive Maintenance
 - c. General supply support
 - d. UAV supply support
 - e. Naval Aviation Maintenance Program (where applicable)

- f. Other Maintenance related programs
- g. Marine Corps Integrated Maintenance Management System
(where applicable)
- h. Safety, Ground and Aviation
- i. Shipping and receiving
- j. Field operations
- k. Training
- l. Equipment accountability

REFERENCE(S):

- 1. FM 3-22-1
- 2. APPROPRIATE SOP'S
- 3. UNIT T/E (CMR) AND T/O
- 4. OPNAVINST 4790.2 (NAMP)
- 5. OPNAVINST 3750 (AVIATION SAFETY)
- 6. MCO P4790.2 (MIMMS FIELD LEVEL PROCEDURES MANUAL)
- 7. NAVAIR-418 (OLSP MS-004)
- 8. APPROPRIATE TECHNICAL PUBLICATIONS

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: MNTO.2.3 DIRECT UAV MAINTENANCE FOR THE MAINTENANCE PLATOON

CONDITION(S): Provided a maintenance shop, required personnel, appropriate equipment, Unit Table of Organization, and references.

STANDARD: Ensure that UAV maintenance is accomplished effectively and efficiently in support of the unit mission.

PERFORMANCE STEPS:

1. Determine maintenance capabilities.
2. Evaluate available personnel.
3. Evaluate available equipment.
4. Analyze workload.
5. Establish maintenance priorities.
6. Assign individual maintenance actions.
7. Inspect completed maintenance actions.
8. Assign corrective action, as required.
9. Update turnover folder.
10. Direct cannibalization actions, as required.

REFERENCE(S):

1. FM 3-22-1
2. MCO P4790.2
3. UNIT T/E (CMR)
4. Unit Table of Organization
5. APPROPRIATE TECHNICAL PUBLICATIONS
6. APPROPRIATE UNIT SOP'S
7. NAVAIR-418 (OLSP MS-004)
8. OPNAVINST 4790.2 (NAMP)

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: MNTO.2.4 DIRECT UAV LOGISTIC SUPPORT FOR THE UAV UNIT

CONDITION(S): Provided facilities, required personnel, and references.

STANDARD: Establish UAV logistics support and ensure it is accomplished effectively and efficiently in support of the unit mission.

PERFORMANCE STEPS:

1. Review the references.
2. Establish specific procedures for UAV logistics support.
3. Ensure the following procedures are adhered to:
 - a. Requisitions
 - b. Reconciliations
 - c. Inventory control
 - d. Shipping and Receiving
 - e. Issue of materials
 - f. Support documentation

Ensure sufficient inventory on hand to support the unit mission.

4. Submit embarkation requirements.

REFERENCE(S):

1. APPROPRIATE SOP'S
2. FM 3-22-1
3. MCO P4400.150
4. NAVAIR-418 (OPERATIONAL LOGISTICS SUPPORT CONCEPT MS-004)

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MOS 9813, GROUND CONTROL STATION (GCS) PAYLOAD OPERATOR

DUTY AREA 1 - PRE-OPERATIONAL/PRE-LAUNCH PROCEDURES

TASK: 9813.1.1 PLAN UAV MISSION

CONDITION(S): Given all flight data, map, mission planning materials, shipboard plans, area maps, target data, flight log, and a briefing area.

STANDARD: The mission plan is completed to include routes, altitudes, time over targets, and fuel consumption.

PERFORMANCE STEPS:

- 1. Plot the UAV flight plan.
- 2. Review ship plans (if applicable).
- 3. Review mission area terrain and targets.
- 4. Record flight path turn point coordinates.
- 5. Record target coordinates and altitudes.
- 6. Attend pre-mission briefs.

REFERENCE(S):

- 1. FM 3-22-1
- 2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.1.2 CONDUCT THE BAY AUTOMATIC TEST OF STATION

CONDITION(S): Given an OBY.

MCO 1510.82A
16 Jan 95

STANDARD: Conduct bay automation test in accordance with Pub# 03a-10, section 2, paragraph 10.1.3.. Report all system failures to maintenance.

PERFORMANCE STEPS:

1. Conduct automatic test of the station.
2. Conduct graphics interactive test.
3. Conduct interactive test of station.
4. Notify maintenance of discrepancies.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual
3. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.1.3 ACTIVATE THE PRESET CONTROL MODE

CONDITION(S): Given an observer bay.

STANDARD: All data is accurate and entered without error.

PERFORMANCE STEPS:

1. Update general data information.
2. Enter payload definition.
3. Enter pixel sight alignment data.
4. Update timers and counters.
5. Enter gunfire information.
6. Terminate preset control mode.

Appendix D to
ENCLOSURE (6)

REFERENCE(S):

- 1. FM 3-22-1
- 2. JUATOPS manual
- 3. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.1.4 CONDUCT PIXEL SIGHT ALIGNMENT

CONDITION(S): Given an OBY and payload video.

STANDARD: Camera alignment is performed without error and pixel numbers for the camera are recorded by serial number.

PERFORMANCE STEPS:

- 1. Identify the function of controls/display specific to aligning the camera.
- 2. Identify the relationship between field of view and camera zoom.
- 3. Locate all controls/displays specific to aligning the camera.
- 4. Manipulate the cursor to a selected point.
- 5. Record the alignment correction pix numbers.

REFERENCE(S):

- 1. FM 3-22-1
- 2. JUATOPS manual
- 3. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9813.1.5 SELECT PROGRAM OPTIONS VIA MULTI-FUNCTION

CONDITION(S): Given an OCT.

STANDARD: Accurate inputs are performed in a timely manner.

PERFORMANCE STEPS:

1. Activate the screen selection mode.
2. Select the programmed options.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual
3. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.1.6 PREPARE THE VCR-2000 FOR MISSION

CONDITION(S): Given a VCR-2000 and checklist.

STANDARD: The checklist is completed in an accurate manner.

PERFORMANCE STEPS:

1. Identify the function of the controls/indicators of the VCR-2000.
2. Locate all controls/displays.
3. Complete the checklist.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual
3. NAA1-SRRPV-GCS-500

Appendix D to
ENCLOSURE (6)

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.1.7 PREPARE THE OTMP-2000 FOR MISSION

CONDITION(S): Given an OTMP.

STANDARD: Screen adjustments are performed in a timely manner.

PERFORMANCE STEPS:

1. Identify the function of controls/displays.
2. Locate controls/displays.
3. Adjust the brightness and contrast controls.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual
3. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.1.8 PREPARE THE OVC-2000 FOR MISSION

CONDITION(S): Given an OVC-2000 with functions checklist.

STANDARD: Accurate adjustments are performed in a timely manner.

PERFORMANCE STEPS:

1. Identify the function of the controls/displays.
2. Locate the controls/displays.
3. Complete the OVC-2000 functions checklist.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual
3. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.1.9 PREPARE THE OCD-200 FOR MISSION

CONDITION(S): Given an OCD and appropriate checklist.

STANDARD: The checklist is completed in an accurate manner.

PERFORMANCE STEPS:

1. Locate all controls/displays.
2. Identify the functions of the controls/displays.
3. Identify the correct settings of controls/displays.
4. Complete the checklist.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual
3. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.1.10 PREPARE THE OCT-2000 FOR MISSION

CONDITION(S): Given an OCT and checklist.

STANDARD: The checklist is completed in an accurate manner.

PERFORMANCE STEPS:

1. Identify the procedure for preparing the OCT-200 for a mission.
2. Locate all controls/displays.
3. Identify the function of each control/display.
4. Identify correct settings of controls/displays.
5. Complete the checklist.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual
3. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.1.11 ORIENT THE PLOTTER

CONDITION(S): Given a TBY, maps, and checklist.

STANDARD: Plotter set-up is performed in an accurate and timely manner.

PERFORMANCE STEPS:

1. Position the map on the plotter.
2. Orient the plotter with the map.
3. Locate all components, controls, and displays.
4. Identify the relationship between the TCU coordinates and the plotter.
5. Identify the function of each component/control/display.
6. Complete the checklist.

Appendix D to
ENCLOSURE (6)

MCO 1510.82A
16 Jan 95

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual
3. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.1.12 PREPARE THE TCD-2000 FOR MISSION

CONDITION(S): Given a TCD and checklist.

STANDARD: The checklist is completed in an accurate manner.

PERFORMANCE STEPS:

1. Demonstrate the procedure for mission preparation.
2. Locate controls/displays.
3. Identify functions of controls/displays.
4. Identify the correct settings of all controls.
5. Complete the checklist.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual
3. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix D to
ENCLOSURE (6)

DUTY AREA 2 - PAYLOAD FLIGHT OPERATIONS

TASK: 9813.2.1 OPERATE THE PLATFORM

CONDITION(S): Given an OBY, camera video, an operating airborne UAV system.

STANDARD: OBY control for the camera is performed in an accurate manner.

PERFORMANCE STEPS:

- 1. Set the platform ON/OFF.
- 2. Set the platform position.
- 3. Set the bearing.
- 4. Set the platform rate.
- 5. Deploy the payload shield.

REFERENCE(S):

FM 3-22-1
JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.2.2 OPERATE THE MOKED 200 PAYLOAD CAMERA

CONDITION(S): Given an OBY, camera video, and an operating airborne UAV system.

STANDARD: Accurate and steady control of the camera is performed.

PERFORMANCE STEPS:

- 1. Select the video ON.
- 2. Set the iris to AUTO/MAN.
- 3. Operate the iris manually.
- 4. Operate the camera zoom.

MCO 1510.82A
16 Jan 95

5. Operate the camera focus.

REFERENCE(S):

FM 3-22-1
JUATOPS manual
NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.2.3 OPERATE THE MOKED 400 PAYLOAD CAMERA

CONDITION(S): Given an OBY, camera video, and an operating airborne UAV system.

STANDARD: Accurate and steady control of the camera is performed.

PERFORMANCE STEPS:

1. Select the video ON.
2. Select the field of view.
3. Select the white/black mode.
4. Operate the camera focus.
5. Set video gain to automatic/manual.

REFERENCE(S):

FM 3-22-1
JUATOPS manual
NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.2.4 PERFORM TARGET ACQUISITION

CONDITION(S): Given an OBY, camera video, and an operating airborne UAV system.

Appendix D to
ENCLOSURE (6)

STANDARD: Proper procedures for target acquisition mode are performed.

PERFORMANCE STEPS:

1. Update target coordinates.
2. Select target coordinates.
3. Acquire the target.
4. Hold the target coordinates.
5. Ensure accurate target altitude input by the internal pilot.

REFERENCE(S):

FM 3-22-1
JUATOPS manual
NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.2.5 OPERATE THE PLOTTER

CONDITION(S): Given an OBY, and an operating airborne UAV system.

STANDARD: Proper procedures for plotter control by payload vice airframe are performed.

PERFORMANCE STEPS:

1. Track the target.
2. Mark the target.
3. Ensure accurate target altitude input by the internal pilot.

REFERENCE(S):

FM 3-22-1
JUATOPS manual
NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.2.6 PERFORM ARTILLERY ADJUSTMENT

CONDITION(S): Given an OBY, camera video, communications, and an operating airborne UAV system.

STANDARD: Accurate and timely fire missions, utilizing proper procedures and achieving "rounds on targets," are performed.

PERFORMANCE STEPS:

1. Select the artillery adjustment.
2. Manipulate the cursor to track a target within the artillery adjustment mode.
3. Manipulate the cursor onto a target of opportunity.
4. Use the light pen during adjustment.
5. Perform "Call for Fire" communications.
6. Communicate the adjustment.
7. Communicate "End of Mission".

REFERENCE(S):

FM 3-22-1
FMFM 6-8
JUATOPS manual
NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.2.7 PERFORM GENERAL NAVIGATION

CONDITION(S): Given an OBY, and an operating airborne UAV system.

STANDARD: Navigation procedures utilizing crew coordination are performed without error.

PERFORMANCE STEPS:

- 1. Perform map and terrain association.
- 2. Perform navigational headings, direction, and correction procedures.

REFERENCE(S):

FM 3-22-1
JUATOPS manual
NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.2.8 PERFORM TARGET SEARCH

CONDITION(S): Given an OBY, data, video, and an operating airborne UAV system.

STANDARD: Targets are accurately located within the area of observation utilizing each type of search method.

PERFORMANCE STEPS:

- 1. Perform an area search.
- 2. Perform a linear search.
- 3. Perform a point search.

REFERENCE(S):

FM 3-22-1
JUATOPS manual
NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9813.2.9 PERFORM CAMERA GUIDE PROCEDURES

CONDITION(S): Given an OBY, and an operating airborne UAV system.

STANDARD: Targets are located using proper camera control for the camera guide mode.

PERFORMANCE STEPS:

1. Track a selected target.
2. Identify all applicable controls/displays.
3. Communicate with the IP to ensure proper camera guidance has been completed.

REFERENCE(S):

FM 3-22-1
JUATOPS manual
NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9813.2.10 PERFORM POST MISSION TASKS

CONDITION(S): Given an OBY, VCR-2000, mission tape, printouts, and briefing area.

STANDARD: Proper shut down procedures are performed without error.

PERFORMANCE STEPS:

1. Position camera for landing.
2. Retrieve and label the videocassette.
3. Retrieve hard copy printouts.
4. Attend the post mission briefing.
5. Record payload off time.

Appendix D to
ENCLOSURE (6)

REFERENCE(S) :

- 1. FM 3-22-1
- 2. JUATOPS manual
- 3. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix D to
ENCLOSURE (6)

MOS 9814, EXTERNAL UNMANNED AERIAL VEHICLE (UAV) OPERATOR

DUTY AREA 1 - CONDUCT PRE-OPERATIONAL/PRE-LAUNCH PROCEDURES

TASK: 9814.1.1 PERFORM UAV ENGINE PRE-STARTING PROCEDURES

CONDITION(S): Given the UAV and the UAV maintenance book, briefing area, mission plan, and publication NAA1-SRRPV-GCS-500.

STANDARD: Engine pre-starting procedures are conducted correctly and the engine is ready for starting.

PERFORMANCE STEPS:

1. Attend the mission briefing.
2. Verify UAV Maintenance forms are complete.
3. Perform an UAV external visual inspection.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual
3. NAA1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.1.2 PERFORM UAV ENGINE START

CONDITION(S): Given the UAV, CBX/SBX, and an engine start checklist.

STANDARD: Engine started in accordance with the reference.

PERFORMANCE STEPS:

1. Gain control of the CBX/SBX from the internal pilot.
2. Obtain clearance to start the engine.

Appendix E to
ENCLOSURE (6)

MCO 1510.82A
16 Jan 95

3. Give the command to start the engine to the mechanic.
4. Sustain 5000 rpm's till engine reaches 150 degrees.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.1.3 CONDUCT PRE-TAKEOFF CHECKS

CONDITION(S): Given the CBX, checklist, and operating UAV.

STANDARD: All pre-takeoff checks are completed accurately.

PERFORMANCE STEPS:

1. Check response of the UAV control surfaces and nosewheel to the CBX/SBX control box stick movement.
2. Check Engine RPM engine temperature.
3. Check Engine Trap Operation.
4. Verify the UAV response to the CBX and SBX in AUTOPILOT ENGAGED.
5. Verify the UAV response to the CBX and SBX in AUTOPILOT DISENGAGED.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix E to
ENCLOSURE (6)

TASK: 9814.1.4 TAXI THE UAV TO THE EXTERNAL (UAV) OPERATOR POSITION

CONDITION(S): Given the CBX an IC link with the IP, communications with the UAV escorts, and an operating UAV.

STANDARD: The UAV is taxied into position safely.

PERFORMANCE STEPS:

1. Perform final checks and set trims.
2. Verify that taxi clearance has been received.
3. Instruct escorts to move the UAV from the runup stand to the CP position.
4. Visually inspect the UAV to ensure that no obvious problems exist.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 2 - LAUNCHING THE UAV

TASK: 9814.2.1 PERFORM TAKEOFF AND INITIAL CLIMB PROCEDURES FROM A RUNWAY

CONDITION(S): Given the CBX, an IC link with the IP, eye contact with the UAV escorts, runway lights, and an operating UAV.

STANDARD: The UAV is launched safely and correctly.

PERFORMANCE STEPS:

1. Steer the UAV to the takeoff point.
2. Verify escorts final checks are complete.

3. Verify that takeoff clearance is received and the runway and sky are clear.
4. Call out switch positions.
5. Verify engine rpm's.
6. Announce "RELEASE".
7. Verify airspeeds.
8. Control the UAV during takeoff and announce "TAKEOFF".
9. Verify engine rpm's.
10. Conduct in flight test of autopilot control loops.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.2.2 PERFORM TAKEOFF AND INITIAL CLIMB PROCEDURES FROM THE PNEUMATIC LAUNCHER

CONDITION(S): Given the CBX, an IC link with the IP, and an operating UAV.

STANDARD: The UAV is launched safely and correctly.

PERFORMANCE STEPS:

1. Verify that the IP has announced "GCS READY-CLEARED FOR TAKEOFF".
2. Verify that the Crew Chief is ready to launch.
3. Set the throttle to maximum.
4. Verify Engine RPM.
5. Apply desired elevator.
6. Notify the Crew Chief to prepare for launch.
7. Countdown to launch.

8. Announce "AIRBORNE" when the launcher fires.
9. Control the UAV during Takeoff.
10. Conduct in flight test of autopilot control loops.

REFERENCE(S) :

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.2.3 PERFORM TAKEOFF AND INITIAL CLIMB PROCEDURES
FROM THE ROCKET ASSISTED TAKEOFF (RATO) LAUNCHER

CONDITION(S): Given the CBX, and IC link with the IP, an
operating UAV, and communications with the Crew Chief/Ordnance
Team.

STANDARD: The UAV is launched safely and correctly.

PERFORMANCE STEPS:

1. Verify that no hazardous conditions exist near the launch
site.
2. Verify the GCS is ready for launch.
3. Verify the Flight Deck Annunciator lamp is GREEN.
4. Obtain permission from the mission commander to launch.
5. Announce "READY TO COUNTDOWN" when ready for launch.
6. Set the throttle to maximum and verify engine RPM.
7. Apply desired elevator.
8. Countdown to launch.
9. Announce "TAKEOFF" when the launcher fires.
10. Control the UAV during Takeoff.
11. Communicate Bottle Release status.
12. Conduct an in flight test of autopilot control loops.

Appendix E to
ENCLOSURE (6)

MCO 1510.82A
16 Jan 95

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.2.4 TRANSFER CONTROL TO THE INTERNAL PILOT OR THE PCS OPERATOR

CONDITION(S): Given the CBX, an IC link with the IP/PCS Operator, and an airborne UAV.

STANDARD: The internal pilot has full control of the UAV.

PERFORMANCE STEPS:

1. Verify that the Internal Pilot has control of the Altitude loop.
2. Verify that the Internal Pilot has control of the Airspeed loop.
3. Verify that the tracking antenna has locked onto the UAV.
4. Verify that the Internal Pilot has control of the Roll loop.
5. Maintain visual till out of sight.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix E to
ENCLOSURE (6)

DUTY AREA 3 - CONDUCTING EMERGENCY FLIGHT OPERATIONS

TASK: 9814.3.1 PERFORM EMERGENCY PROCEDURES FOR TELEMETRY FAILURE/INCORRECT DATA FROM DOWNLINK DURING DAYTIME

CONDITION(S): Given the CBX, an IC link with the IP, and an airborne UAV.

STANDARD: Emergency procedures are conducted without failure.

PERFORMANCE STEPS:

- 1. Prepare for landing.
- 2. Ensure engine cut switch on.
- 3. Set the UAV aircraft lights ON.
- 4. Utilize all accurate downlink data.
- 5. Control the UAV during the emergency.

REFERENCE(S):

- 1. FM 3-22-1
- 2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.3.2 PERFORM EMERGENCY PROCEDURES FOR TELEMETRY FAILURE/INCORRECT DATA FROM DOWNLINK DURING NIGHT

CONDITION(S): Given the CBX, an IC link with the IP, and an airborne UAV.

STANDARD: Emergency procedures are conducted without error.

PERFORMANCE STEPS:

- 1. Prepare for night landing.
- 2. Verify that the runway is illuminated.

MCO 1510.82A
16 Jan 95

3. Verify that the UAV aircraft lights are ON.
4. Utilize all accurate downlink data.
5. Control the UAV during the emergency.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.3.3 PERFORM EMERGENCY PROCEDURES WHEN A FAST IDLE
CONDITION OCCURS

CONDITION(S): Given the CBX, an IC link with the IP, and an
airborne UAV.

STANDARD: The UAV is safely handled at high speeds, and
emergency procedures are conducted without error.

PERFORMANCE STEPS:

1. Prepare the UAV for landing.
2. Adjust the landing pattern.
3. Verify UAV aircraft lights are on.
4. Abort the landing when the UAV is outside the approach
speed envelope.
5. Perform Engine Cut emergency procedures.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix E to
ENCLOSURE (6)

TASK: 9814.3.4 PERFORM AUTOPILOT FAILURE EMERGENCY PROCEDURES

CONDITION(S): Given the CBX, an IC link with the IP, and an airborne UAV.

STANDARD: The UAV is landed in auto pilot disconnect (Disco) and emergency procedures are conducted without error.

PERFORMANCE STEPS:

1. Attempt to trim out failure.
2. Set the AUTOPILOT ENGAGE/DISENGAGE switch to DISENGAGE.
3. Prepare the UAV for landing.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.3.5 PERFORM BATTERY/GENERATOR FAILURE EMERGENCY PROCEDURES

CONDITION(S): Given the CBX, an IC link with the IP, and an airborne UAV.

STANDARD: Rapid and safe landing is performed as soon as possible. Emergency procedures are conducted without error.

PERFORMANCE STEPS:

1. Return the UAV for an immediate landing.
2. Monitor battery voltage in conjunction with the internal pilot.

REFERENCE(S):

1. FM 3-22-1

2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.3.6 PERFORM EMERGENCY PROCEDURES FOR ENGINE
MALFUNCTION IMMEDIATELY AFTER TAKEOFF

CONDITION(S): Given the CBX, an IC link with the IP, and an
airborne UAV with engine malfunction.

STANDARD: Safe landing is performed with engine malfunction.
Emergency procedures are conducted without error.

PERFORMANCE STEPS:

1. Identify the engine malfunction.
2. Take corrective action.
3. Land as soon as possible.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.3.7 PERFORM EMERGENCY PROCEDURES WHEN AN ENGINE
MALFUNCTION OCCURS WHILE THE UAV IS IN VISUAL RANGE

CONDITION(S): Given the CBX, an IC link with the IP, an airborne
UAV, and communications with the ground crew.

STANDARD: Safe landing is performed with engine malfunction.
Emergency procedures are conducted without error.

PERFORMANCE STEPS:

1. Identify the engine malfunction.

- 2. Adjust UAV landing pattern to vertical velocity.
- 3. Land as soon as possible.

REFERENCE(S):

- 1. FM 3-22-1
- 2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.3.8 PERFORM PNEUMATIC LAUNCHER MISFIRE PROCEDURES

CONDITION(S): Given a pneumatic launcher, CBX, IC link with IP, and operating UAV.

STANDARD: Knowledge of launcher malfunction is required. Misfire procedures are conducted without error.

PERFORMANCE STEPS:

- 1. Identify the launch misfire.
- 2. Hold launch posture until the launcher is "safed".
- 3. Reset launch controls.
- 4. Continue with the launch if desired.

REFERENCE(S):

- 1. FM 3-22-1
- 2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.3.9 PERFORM RATO MISFIRE PROCEDURES

CONDITION(S): Given a CBX, RATO system failure, and an IC link with the IP.

STANDARD: The RATO launch is aborted. Misfire procedures are conducted without error.

PERFORMANCE STEPS:

1. Identify the launch misfire.
2. Hold launch posture until the RATO is "safed".
3. Perform engine cut procedures if desired.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 4 - RECOVERING THE UAV

TASK: 9814.4.1 ASSUME CONTROL FROM THE INTERNAL PILOT OR PCS OPERATOR

CONDITION(S): Given an IC link with the IP/PCS Operator, the CBX, and an airborne UAV.

STANDARD: The UAV is prepared for landing. Full control is obtained.

PERFORMANCE STEPS:

1. Notify the Internal Pilot when visual contact is established.
2. Assume control of the UAV.
3. Verify Roll Loop.
4. Verify Altitude Loop.

5. Verify Airspeed Loop.
6. Notify the Internal Pilot of normal operations.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.4.2 RECOVER THE UAV ON A RUNWAY DURING THE DAY

CONDITION(S): Given the CBX, an IC link with the IP, and an airborne UAV.

STANDARD: The UAV is prepared for landing. Recovery procedures are conducted without error.

PERFORMANCE STEPS:

1. Obtain permission to land.
2. Verify engine cut switch on.
3. Set the UAV lights ON.
4. Land the UAV.
5. Announce ENGINE CUT.
6. Announce UAV "In the Gear".
7. Verify that the UAV lights are OFF.
8. Verify the ENGINE CUT switch is ON.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

Appendix E to
ENCLOSURE (6)

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.4.3 RECOVER THE UAV ON A RUNWAY AT NIGHT

CONDITION(S): Given the CBX, an IC link with the IP, and an airborne UAV.

STANDARD: The UAV is prepared for night landing. Recovery procedures are conducted without error.

PERFORMANCE STEPS:

1. Verify all ground lighting is operational.
2. Verify engine cut switch is ON.
3. Verify that the UAV aircraft lights are ON.
4. Obtain permission to land.
5. Land the UAV.
6. Announce ENGINE CUT.
7. Announce UAV "In the Gear".
8. Verify that the UAV lights are OFF.
9. Verify that the Engine Cut Switch is OFF.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.4.4 PERFORM POST MISSION TASKS

CONDITION(S): Given the briefing and the Flight Log.

STANDARD: All problems and items of interest are reported.

PERFORMANCE STEPS:

1. Attend the post-mission briefing.
2. Identify problem areas or items of interest encountered during the mission.

REFERENCE(S):

1. FM 3-22-1
2. JUATOPS manual

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 5 - MAINTAIN THE HOOK ARRESTING SYSTEM (HAS)

TASK: 9814.5.1 PERFORM A HOOK ARRESTING SYSTEM (HAS)
PREFLIGHT/DAILY INSPECTION

CONDITION(S): Given the hook arresting system.

STANDARD: All discrepancies are identified

PERFORMANCE STEPS:

1. Identify unacceptable condition of HAS components.
2. Perform braking force adjustment test.

REFERENCE(S):

1. FM 3-22-1
2. MRC A1-1-P10-RPV-6-1
3. NAVAIR A1-SRRPV-GSE-960

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.5.2 PERFORM HAS MAINTENANCE

CONDITION(S): Given the hook arresting system, tools, materials and references.

STANDARD: HAS maintenance is performed per the reference.

PERFORMANCE STEPS:

1. Replace the HAS brake disks.
2. Replace the HAS strap.
3. Replace the HAS rotors.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GSE-960

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.5.3 PERFORM HAS LONG-TERM STORAGE PROCEDURES

CONDITION(S): Given the hook arresting system, tools, materials, and references.

STANDARD: The HAS is properly prepared for long-term storage.

PERFORMANCE STEPS:

1. Perform preventive maintenance procedures.
2. Release the caliper pressure cap.
3. Clean the cables and pegs.
4. Store the HAS components in proper containers.

REFERENCE(S):

1. FM 3-22-1

2. NAVAIR A1-SRRPV-GSE-960

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.5.4 PERFORM HAS POST-FLIGHT CHECK

CONDITION(S): Given the HAS, tools, and materials.

STANDARD: All discrepancies are identified.

PERFORMANCE STEPS:

- 1. Identify unacceptable condition of HAS components.
- 2. Take corrective action.

REFERENCE(S):

- 1. FM 3-22-1
- 2. MRC A1-1-P10-RPV-6-3.2
- 3. NAVAIR A1-SRRPV-GSE-960

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9814.5.5 PERFORM SETUP PROCEDURES FOR HAS

CONDITION(S): Given the HAS, tools, and materials.

STANDARD: Correctly set the H.A.S.

PERFORMANCE STEPS:

- 1. Determine HAS locations for each end of the runway.
- 2. Employ the HAS.

REFERENCE(S):

- 1. FM 3-22-1

MCO 1510.82A
16 Jan 95

- 2. MRC A1-1-P10-RPV-6-1.6
- 3. NAVAIR A1-SRRPV-GSE-960

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix E to
ENCLOSURE (6)

6-E-18

MOS 9815, ELECTRONIC/ELECTRICAL MAINTENANCE TECHNICIAN

DUTY AREA 1 - MAINTAIN THE AIRFRAME ELECTRONICS SYSTEM

TASK: 9815.1.1 PERFORM THE UAV AUTOMATIC TEST

CONDITION(S): Given a GCS/PCS and feedback from the UAV and mechanical technician.

STANDARD: The test is conducted per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform the default preflight program.
2. Perform the defined preflight program.
3. Identify corrective action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.2 PERFORM THE G-Band TRANSMISSION FUNCTIONAL TEST

CONDITION(S): Given tools, equipment, GCS-PCS, UAV, and the reference.

STANDARD: The test is conducted per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform test preparation procedures.
2. Locate all controls and displays specific to the G-Band transmission test.

MCO 1510.82A
16 Jan 95

3. Identify the function of all controls and displays specific to the G-Band transmission test.
4. Take corrective action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.3 PERFORM THE G-Band RECEIVER SENSITIVITY TEST

CONDITION(S): Given tools, equipment, GCS/PCS, UAV, and appropriate reference, NAVAIR A1-SRRPV-MMI-200.

STANDARD: The test is conducted per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform test preparation procedures.
2. Locate all controls and displays specific to the G-Band receiver sensitivity test.
3. Identify the function of all controls and displays specific to the G-Band receiver sensitivity test.
4. Take corrective action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix F to
ENCLOSURE (6)

TASK: 9815.1.4 PERFORM THE G-Band ANTENNA VSWR CHECK

CONDITION(S): Given tools, equipment, GCS/PCS, UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The test is conducted per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Perform test preparation procedures.
- 2. Identify corrective action.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.5 PERFORM THE UHF RECEIVER SENSITIVITY TEST

CONDITION(S): Given tools, equipment, GCS/PCS, UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The test is conducted per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Perform test preparation procedures.
- 2. Identify corrective action.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9815.1.6 PERFORM THE UHF ANTENNA VSWR TEST

CONDITION(S): Given tools, equipment, GCS/PCS, UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The test is conducted per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform test preparation procedures.
2. Identify corrective action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.7 PERFORM THE SPREAD SPECTRUM RECEIVER TEST

CONDITION(S): Given the UAV, GCS/PCS, tools, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The test is conducted per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform transmit power measurement procedures.
2. Perform downlink receiver sensitivity procedures.
3. Perform conversion gain test.
4. Perform output signal to noise measurement.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

Appendix F to
ENCLOSURE (6)

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.8 REPLACE THE G-Band RECEIVER UNIT (RCU)

CONDITION(S): Given tools, equipment, RCU, GCS/PCS, UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old RCU.
3. Install the new RCU.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.9 REPLACE THE G-Band DIPLEXER UNIT (DCU)

CONDITION(S): Given tools, equipment, DCU, GCS/PCS, UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old DCU.
3. Install the new DCU.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.10 REPLACE THE G-BAND TRANSMITTER (TX)

CONDITION(S): Given tools, equipment, TX, GCS/PCS, UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old TX.
3. Install the new TX.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.11 REPLACE THE G-Band POWER UNIT (PCU)

CONDITION(S): Given tools, equipment, PCU, GCS/PCS, UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old PCU.
- 3. Install the new PCU.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.12 REPLACE THE DC TO DC CONVERTER (DDC)

CONDITION(S): Given tools, equipment, DDC, GCS/PCS, UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old DDC.
- 3. Install the new DDC.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.13 REPLACE THE +15V POWER SUPPLY MODULE

CONDITION(S): Given tools, equipment, PS module, GCS/PCS, UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old PS module.
3. Install the new PS module.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.14 REPLACE THE G-Band OMNI/DIRECTIONAL ANTENNA

CONDITION(S): Given tools, equipment, Antenna, UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Remove the old G-Band omni/directional antenna.
2. Install the new G-Band omni/directional antenna.
3. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

Appendix F to
ENCLOSURE (6)

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.15 REPLACE THE G-Band OMNI ANTENNA

CONDITION(S): Given tools, equipment, antenna, GCS/PCS, UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Remove the old G-Band omni antenna.
2. Install the new G-Band omni antenna.
3. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.16 REPLACE THE UHF RECEIVER UNIT (RUU)

CONDITION(S): Given tools, equipment, Antenna, GCS/PCS, UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old RUU.
3. Install the new RUU.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.17 REPLACE THE IFF TRANSPONDER

CONDITION(S): Given tools, equipment, transponder, UAV, GCS/PCS, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Remove the old IFF transponder.
2. Install the new IFF transponder.
3. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.18 REPLACE THE ELECTRICAL POWER SUPPLY (EPS)

CONDITION(S): Given tools, equipment, EPS, UAV, GCS/PCS, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.

- 2. Remove the old EPS.
- 3. Install the new EPS.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.19 REPLACE THE ELECTRICAL POWER SUPPLY (EPS) FUSES

CONDITION(S): Given tools, equipment, fuses, UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old fuse.
- 3. Install the new fuse.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9815.1.20 PERFORM BATTERY EMERGENCY UNIT (BEU) PREVENTIVE MAINTENANCE

CONDITION(S): Given tools, equipment, and BEU.

STANDARD: Preventive maintenance is performed per the reference.

PERFORMANCE STEPS:

1. Identify unacceptable conditions of the battery pack.
2. Locate the battery charger/discharger test buttons.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.1.21 CHARGE/DISCHARGE THE BATTERY EMERGENCY UNIT (BEU)

CONDITION(S): Given tools, equipment, and BEU.

STANDARD: The BEU is charged/discharged per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Identify if the battery needs full, topping, or trickled charge.
2. Perform preparation procedures.
3. Perform the discharging procedures.
4. Perform the charging procedures.
5. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

Appendix F to
ENCLOSURE (6)

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 2 - MAINTAIN THE GROUND CONTROL STATION TRACKING AND COMMUNICATIONS SYSTEM

TASK: 9815.2.1 PERFORM A COMMUNICATIONS BAY (CBY) VISUAL INSPECTION

CONDITION(S): Given a GCS.

STANDARD: All required items are inspected and all discrepancies identified.

PERFORMANCE STEPS:

1. Identify unacceptable conditions of front panel controls and displays.
2. Identify unacceptable conditions of front panel hardware.
3. Locate unit and sub-assembly mounting hardware.
4. Identify unacceptable conditions of internal/external cables, wires, and connectors.
5. Identify unacceptable conditions of unit cases.
6. Identify unacceptable conditions of spares.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.2 CLEAN THE COMMUNICATIONS BAY (CBY)

CONDITION(S): Given a cloth, water, mild soap, and aerosol spray type MIL-C-81309.

MCO 1510.82A
16 Jan 95

STANDARD: All dirt/foreign material is removed.

PERFORMANCE STEPS:

1. Turn off the power.
2. Apply anti-corrosive spray to CBY electrical connectors.
3. Using above, wash and wipe front panel.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.3 CLEAN THE TRACKING CONTROL UNIT (TCU) BAY
FILTERS

CONDITION(S): Given tools, water, detergent, pressurized air,
filter, TCU, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: All dirt/foreign material is removed.

PERFORMANCE STEPS:

1. Locate the power switches.
2. Locate appropriate circuit breakers.
3. Verify that the two lower drawers are removed.
4. Locate filter mounting hardware.
5. Verify that the two lower drawers are replaced.
6. Apply cleaning materials.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

Appendix F to
ENCLOSURE (6)

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.4 CLEAN THE TRACKING CONTROL UNIT (TCU) VENTILATOR

CONDITION(S): Given tools, water, detergent, pressurized air, ventilator, and TCU.

STANDARD: All dirt/foreign material is removed.

PERFORMANCE STEPS:

1. Locate the power switches.
2. Locate the appropriate circuit breakers.
3. Verify that the two lower drawers have been removed.
4. Locate ventilator hardware.
5. Verify that the two lower drawers have been replaced.
6. Apply cleaning materials.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.5 PERFORM A TRACKING CONTROL UNIT (TCU) FUNCTIONAL AND TROUBLESHOOTING TEST

CONDITION(S): Given a failure symptom, GCS/TCU, NAVAIR A1-SRRPV-GCS-510, UAV test equipment, and tools.

STANDARD: Causes of faults are correctly identified.

PERFORMANCE STEPS:

1. Locate all TCU controls and displays.
2. Identify fault.

MCO 1510.82A
16 Jan 95

3. Identify corrective action.
4. Take corrective action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.6 CONDUCT COMMUNICATIONS BAY (CBY) AUTOMATIC TESTS

CONDITION(S): Given a GCS, TCU, UAV, NAVAIR A1-SRRPV-GCS-510, and MRC for GCS.

STANDARD: Conduct the test and take appropriate actions once completed. The test is conducted per prescribed procedures contained in the references.

PERFORMANCE STEPS:

1. Locate CBY controls and displays.
2. Identify the function of CBY controls and displays.
3. Identify corrective action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510
3. MRC Deck.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix F to
ENCLOSURE (6)

TASK: 9815.2.7 REPLACE THE COMMUNICATIONS CONTROL BOX (CCB)

CONDITION(S): Given tools, CCB, TCU, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old CCB.
3. Install the new CCB.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.8 REPLACE THE MICROPROCESSOR CONTROLLED AUTOTRACKER (MCAT)

CONDITION(S): Given tools, MCAT, GCS, TCU, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old MCAT.
3. Install the new MCAT.
4. Perform post-replacement procedures.

MCO 1510.82A
16 Jan 95

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.9 REPLACE THE ENCODER/DECODER CAGE (EDC)

CONDITION(S): Given tools, EDC, GCS, TCU, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old EDC.
3. Install the new EDC.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.10 REPLACE THE COMMUNICATIONS TEST UNIT (CTU)

CONDITION(S): Given tools, CTU, GCS, TCU, and NAVAIR A1-SRRPV-CS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

Appendix F to
ENCLOSURE (6)

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old CTU.
- 3. Install the new CTU.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.11 REPLACE THE TYPICAL RACK MOUNTED DRAWER

CONDITION(S): Given tools, CTU drawer, GCS bay or TCU and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old drawer.
- 3. Install the new drawer.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9815.2.12 REPLACE THE TRANSMITTER SPREAD SPECTRUM (TX SP/SP)

CONDITION(S): Given tools, TX SP/SP, GCS, TCU, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old TX SP/SP.
3. Install the new TX SP/SP.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.13 REPLACE THE UHF TRANSMITTER (TXUHF)

CONDITION(S): Given tools, TXUHF, GCS, TCU, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old TXUHF.
3. Install the new TXUHF.
4. Perform post-replacement procedures.

Appendix F to
ENCLOSURE (6)

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.14 REPLACE THE G-Band RECEIVER (RXC)

CONDITION(S): Given tools, RXC, GCS, TCU, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old RXC.
- 3. Install the new RXC.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.15 REPLACE THE COMMUNICATIONS BAY (CBY) POWER SUPPLIES

CONDITION(S): Given tools, power supplies, TCU, GCS, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old power supplies.
3. Install the new power supplies.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.16 REPLACE THE 28VDC POWER SUPPLY

CONDITION(S): Given a power supply, tools, TCU, GCS, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old power supply.
3. Install the new power supply.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.17 REPLACE THE TRACKING ANTENNA

CONDITION(S): Given tools, antenna, GCS, TCU, and NAVAIR A1-SRRPV-GCS-510, Beacon or UAV.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Remove the old antenna.
- 2. Install the new antenna.
- 3. Perform post replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.18 REPLACE THE G-Band OMNI ANTENNA

CONDITION(S): Given tools, antenna, GCS, TCU, NAVAIR A1-SRRPV-GCS-510, and UAV.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Remove the old antenna.
- 2. Install the new antenna.
- 3. Perform post replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.19 REPLACE THE UHF ANTENNA

CONDITION(S): Given tools, antenna, GCS, TCU, UAV, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Remove the old antenna.
2. Install the new antenna.
3. Perform post replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.20 PERFORM A G-Band TRANSMISSION FREQUENCY TEST

CONDITION(S): Given failure symptoms, TCU, tools, GCS, NAVAIR A1-SRRPV-GCS-510, and test equipment.

STANDARD: The test is conducted correctly and per the reference.

PERFORMANCE STEPS:

1. Locate the TCU power switch.
2. Perform test set up procedures.
3. Locate electrical connector J5 on EDC.
4. Locate the TBY power switch.
5. Locate all TCD controls and displays specific to this test.

6. Perform the test.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.21 PERFORM A G-Band TRANSMITTER MODULATION TEST

CONDITION(S): Given failure symptoms, TCU, tools, test equipment, GCS, NAVAIR A1-SRRPV-GCS-510, and UAV.

STANDARD: The test is conducted correctly and per the reference.

PERFORMANCE STEPS:

- 1. Locate the TCU power switch.
- 2. Perform test set up procedures.
- 3. Locate all TCD controls and displays specific to this test.
- 4. Locate all PCD controls and displays specific to this test.
- 5. Perform the test.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9815.2.22 PERFORM A UHF TRANSMITTER FREQUENCY TEST

CONDITION(S): Given failure symptoms, TCU, tools, test equipment, GCS, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The test is conducted correctly and per the reference.

PERFORMANCE STEPS:

1. Locate the TCU power switch.
2. Perform test set up procedures.
3. Locate all PCD controls and displays specific to this test.
4. Perform the test.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.23 PERFORM A UHF TRANSMITTER MODULATION TEST

CONDITION(S): Given failure symptoms, TCU, tools, test equipment, GCS, UAV, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The test is conducted correctly and per the reference.

PERFORMANCE STEPS:

1. Locate the TCU power switch.
2. Perform test set up procedures.
3. Locate all PCD controls and displays specific to this test.
4. Perform the test.

REFERENCE(S):

1. FM 3-22-1

Appendix F to
ENCLOSURE (6)

2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.24 PERFORM A G-Band TRANSMITTER BI-PHASE IN AMPLITUDE TEST

CONDITION(S): Given failure symptoms, TCU, tools, test equipment, GCS, UAV, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The test is conducted correctly and per the reference.

PERFORMANCE STEPS:

- 1. Locate the TCU power switch.
- 2. Remove the transmitter drawer.
- 3. Perform test set up procedures.
- 4. Perform the test.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.25 PERFORM A RECEIVER TM CHANNEL SENSITIVITY TEST

CONDITION(S): Given failure symptoms, TCU, tools, test equipment, GCS, UAV, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The test is conducted correctly and per the reference.

PERFORMANCE STEPS:

- 1. Locate the TCU power switch.
- 2. Remove the ground receiver drawer.
- 3. Perform test set up procedures.

MCO 1510.82A
16 Jan 95

4. Locate all GCS controls and displays specific to this test.
5. Locate all RF plate electrical connectors specific to this test.
6. Perform the test.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.26 PERFORM A RECEIVER VIDEO CHANNEL SENSITIVITY TEST

CONDITION(S): Given failure symptoms, TCU, tools, test equipment, GCS, UAV with payload, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The test is conducted correctly and per the reference.

PERFORMANCE STEPS:

1. Locate the TCU power switch.
2. Perform test set up procedures.
3. Locate all GCS controls and displays specific to this test.
4. Perform the test.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix F to
ENCLOSURE (6)

TASK: 9815.2.27 PERFORM A G-Band TRANSMISSION POWER TEST

CONDITION(S): Given failure symptoms, TCU, tools, test equipment, GCS, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The test is conducted correctly and per the reference.

PERFORMANCE STEPS:

1. Locate the TCU power switch.
2. Perform test set up procedures.
3. Locate all GCS controls and displays specific to this test.
4. Perform the test.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.28 PERFORM A UHF TRANSMISSION POWER TEST

CONDITION(S): Given failure symptoms, TCU, tools, test equipment, GCS, NAVAIR A1-SRRPV-GCS-510.

STANDARD: The test is conducted correctly and per the reference.

PERFORMANCE STEPS:

1. Locate the TCU power switch.
2. Perform test set up procedures.
3. Locate all GCS controls and displays specific to this test.
4. Perform the test.

REFERENCE(S):

1. FM 3-22-1

MCO 1510.82A
16 Jan 95

2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.29 REPLACE THE TRACKING ANTENNA FEEDER

CONDITION(S): Given the TCU, feeder, tools, UAV, GCS, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly placed and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Locate the antenna power cable.
2. Locate the antenna safety switch.
3. Remove the old feeder.
4. Install the new feeder.
5. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.30 REPLACE THE ELEVATION DRIVE ASSEMBLY

CONDITION(S): Given the TCU, elevation drive assembly, NAVAIR A1-SRRPV-GCS-510, and tools.

STANDARD: The unit is properly placed and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Remove the old elevation drive assembly.

Appendix F to
ENCLOSURE (6)

- 2. Install the new elevation drive assembly.
- 3. Perform post replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.31 REPLACE THE ELEVATION DRIVE ASSEMBLY CONTROL

CONDITION(S): Given the TCU, elevation drive assembly control, tools, NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly placed and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Remove the old elevation drive assembly control.
- 2. Install the new elevation drive assembly control.
- 3. Perform post replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.32 PERFORM ELEVATION DRIVE ASSEMBLY PERIODIC INSPECTIONS

CONDITION(S): Given the TCU, tools, grease, and NAVAIR A1-SRRPV-GCS-510.

MCO 1510.82A
16 Jan 95

STANDARD: All appropriate items are inspected and discrepancies identified.

PERFORMANCE STEPS:

1. Remove the elevation drive side panels and covers.
2. Identify unacceptable conditions of the elevation drive electrical and mechanical components.
3. Locate grease caps on the turntable.
4. Locate grease points on the jack screws.
5. Grease above points and caps.
6. Replace the elevation drive side panels.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.33 PERFORM THE GCS DAILY INSPECTION

CONDITION(S): Given the GCS and MRC deck.

STANDARD: All appropriate items are inspected and discrepancies identified.

PERFORMANCE STEPS:

1. Inspect the external GCS.
2. Inspect the emergency battery trailer.
3. Inspect the interior GCS.
4. Conduct bay automatic test from the PBY.
5. Perform the PBY/TBY panel interactive test.
6. Conduct the bay automatic tests from the OBY.
7. Perform OBY panel interactive tests.

Appendix F to
ENCLOSURE (6)

REFERENCE(S) :

- 1. FM 3-22-1
- 2. Pub# MRC 6-1.2

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.34 PERFORM TCU DAILY INSPECTION

CONDITION(S): Given the TCU and MRC deck.

STANDARD: All appropriate items are inspected and discrepancies identified.

PERFORMANCE STEPS:

- 1. Inspect the external TCU.
- 2. Inspect the internal TCU.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. Pub #MRC 6-1.2

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.2.35 PERFORM GROUND DATA SYSTEM (GDS) INTERCOM SYSTEM MAINTENANCE

CONDITION(S): Given the GCS, intercom cables, headsets, control boxes and tools.

STANDARD: All discrepancies are identified and corrective action taken.

PERFORMANCE STEPS:

- 1. Identify discrepancies.
- 2. Take corrective action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 3 - MAINTAIN THE FLIGHT CONTROL SYSTEM (SENSORS/CPA)

TASK: 9815.3.1 ADJUST HEADING REPORTS

CONDITION(S): Given tools, equipment, GCS/PCS, UAV, feedback from the UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: Adjustments are performed correctly, accurately, and per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Perform adjustment procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.3.2 ADJUST THE INDICATED AIRSPEED REPORT

CONDITION(S): Given tools, equipment, GCS/PCS, UAV, feedback from the UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: Adjustments are performed correctly, accurately, and per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Perform adjustment procedure.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.3.3 ADJUST THE ALTITUDE REPORT

CONDITION(S): Given tools, equipment, GCS/PCS, UAV, feedback from the UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: Adjustments are performed correctly, accurately, and per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Perform adjustment procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.3.4 ADJUST THE FLUX VALVE UNIT (FVU) OUTPUT

CONDITION(S): Given tools, equipment, GCS/PCS, UAV, feedback from the UAV, and NAVAIR A1-SRRPV-MMI-200.

MCO 1510.82A
16 Jan 95

STANDARD: Adjustments are performed correctly, accurately, and per the reference.

PERFORMANCE STEPS:

1. Set up the Harmonization Array Pedestal (HAP).
2. Perform preparation procedures.
3. Perform adjustment procedure.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.3.5 ADJUST THE VERTICAL GYRO UNIT (VGU)

CONDITION(S): Given tools, equipment, GCS/PCS, CPA, UAV, feedback from the UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: Adjustments are performed correctly, accurately, and per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Perform calibration/adjustment procedures.
3. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix F to
ENCLOSURE (6)

TASK: 9815.3.6 REPLACE THE CENTRAL PROCESSING ASSEMBLY (CPA)

CONDITION(S): Given tools, equipment, GCS/PCS, CPA, UAV, NAVAIR A1-SRRPV-MMI-200, and feedback from the UAV.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Preform preparation procedures.
2. Remove the old CPA.
3. Install the new CPA.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.3.7 REPLACE THE CENTRAL PROCESSING ASSEMBLY (CPA)
CIRCUIT CARDS

CONDITION(S): Given tools, CPA, circuit cards, GCS/TCU or PCS, UAV, NAVAIR A1-SRRPV-MMI-200, and feedback from UAV.

STANDARD: Adjustments are performed correctly, accurately, and per the reference.

PERFORMANCE STEPS:

1. Remove the CPA.
2. Remove the old PC board.
3. Install the new PC board.
4. Replace the CPA.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.3.8 REPLACE THE FLUX VALVE UNIT (FVU)

CONDITION(S): Given tools, equipment, GCS/PCS, UAV, FVU, feedback from the UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: Adjustments are performed correctly, accurately, and per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old FVU.
3. Install the new FVU.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.3.9 REPLACE THE VERTICAL GYRO UNIT (VGU)

CONDITION(S): Given tools, equipment, GCS/PCS, UAV, VGU, feedback from the UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: Adjustments are performed correctly, accurately, and per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old VGU.
- 3. Install the new VGU.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.3.10 REPLACE THE RATE GYRO UNIT (RGU)

CONDITION(S): Given tools, equipment, GCS/PCS, RGU, UAV, feedback from the UAV, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: Adjustments are performed correctly, accurately, and per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old RGU.
- 3. Install the new RGU.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.3.11 REPLACE THE AIRSPEED TRANSDUCER UNIT (ATU)

CONDITION(S): Given tools, equipment, GCS/PCS, ATU, UAV, feedback from the UAV, NAVAIR A1-SRRPV-MMI-200.

STANDARD: Adjustments are performed correctly, accurately, and per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old ATU.
3. Install the new ATU.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.3.12 REPLACE THE BAROMETRIC PRESSURE UNIT (BPU)

CONDITION(S): Given tools, equipment, GCS/PCS, RPU, UAV, feedback from the UAV, NAVAIR A1-SRRPV-MMI-200.

STANDARD: Adjustments are performed correctly, accurately, and per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old BPU.
3. Install the new BPU.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1

2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 4 - MAINTAIN PAYLOAD SYSTEMS

TASK: 9815.4.1 PERFORM A MKD-200 FUNCTIONAL TEST

CONDITION(S): Given the GCS/PCS and UAV with MKD-200, and NAVAIR A1-SRRPV-SRP-850.

STANDARD: The test is conducted correctly and per the reference.

PERFORMANCE STEPS:

1. Conduct the UAV automatic test.
2. Conduct the observers bay (OBY) automatic test.
3. Perform PYLB alignments and functional check.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-SRP-850

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.4.2 PERFORM A MKD-400 FUNCTIONAL TEST

CONDITION(S): Given the GCS/PCS and UAV with MKD-400, test sets, and NAVAIR A1-SRRPV-SRP-860.

STANDARD: The test is conducted correctly and per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Locate all PBY/OBY controls and displays specific to this procedure.

3. Perform functional test.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-SRP-860

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.4.3 PERFORM THE MKD-200 PIXEL ALIGNMENT

CONDITION(S): Given the GCS/PCS and UAV with MKD-200, and NAVAIR A1-SRRPV-GCS-500.

STANDARD: The test is conducted correctly and per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Perform calibration procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.4.4 PERFORM MKD-400 PIXEL ALIGNMENT

CONDITION(S): Given the UAV with MKD-400, GCS/PCS nitrogen bottles, tools, equipment, and NAVAIR A1-SRRPV-GCS-500.

STANDARD: The MKD-400 is properly aligned per the reference.

PERFORMANCE STEPS:

1. Locate all GCS controls and displays specific to this procedure.

- 2. Locate the MKD-400 germanium window and remove protective cover.
- 3. Perform alignment procedures.

REFERENCES:

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.4.5 PERFORM MKD-200 ALIGNMENT PROCEDURES

CONDITION(S): Given the UAV with MKD-200, tools, multi-meter, GCS/PCS, and NAVAIR A1-SRRPV-SRP-850.

STANDARD: The MKD-200 is properly aligned per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Perform alignment procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-SRP-850

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.4.6 TROUBLESHOOT THE MKD-400 PAYLOAD SYSTEM

CONDITION(S): Given failure symptoms, UAV with MKD-400, GCS/PCS, tools, equipment and NAVAIR A1-SRRPV-SRP-860.

STANDARD: Causes of faults are correctly identified.

MCO 1510.82A
16 Jan 95

PERFORMANCE STEPS:

1. Localize the fault.
2. Take corrective action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-SRP-860

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.4.7 TROUBLESHOOT THE MKD-200 PAYLOAD SYSTEM

CONDITION(S): Given failure symptoms, UAV with MKD-200, tools, equipment, PCS/GCS, and NAVAIR A1-SRRPV-SRP-850.

STANDARD: Causes of faults are correctly identified.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Identify system faults.
3. Take corrective action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-SRP-850

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.4.8 REPLACE THE MKD-200 BUBBLE DOME

CONDITION(S): Given the MKD-200, tools, bubble dome, and NAVAIR A1-SRRPV-SRP-850.

Appendix F to
ENCLOSURE (6)

STANDARD: The unit is properly replaced per the reference.

PERFORMANCE STEPS:

- 1. Remove the MKD-200 assembly.
- 2. Remove the old bubble dome.
- 3. Install the new bubble dome.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-SRP-850

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.4.9 ALIGN THE MKD-400 SYSTEM

CONDITION(S): Given MKD-400, tools, HAP, test sets, and NAVAIR A1-SRRPV-SRP-860.

STANDARD: The MKD-400 is properly aligned per the reference.

PERFORMANCE STEPS:

- 1. Set up the HAP.
- 2. Perform the alignment procedure.
- 3. Perform the functional test.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-SRP-860

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9815.4.10 REPLACE THE PAYLOAD SHIELD SOLENOID ASSEMBLY
CONDITION(S): Given the UAV, shield solenoid, and tools.

STANDARD: The assembly is properly replaced per the reference.

PERFORMANCE STEPS:

1. Remove the old payload shield solenoid assembly.
2. Install the new payload shield solenoid assembly.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 5 - MAINTAIN THE GROUND CONTROL SYSTEM (GCS) BAYS

TASK: 9815.5.1 PERFORM A GCS VISUAL INSPECTION

CONDITION(S): Given GCS, materials, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: All required items are inspected and discrepancies identified.

PERFORMANCE STEPS:

1. Identify unacceptable conditions of front panel controls and displays.
2. Identify unacceptable front panel hardware conditions.
3. Locate units and sub-assembly hardware.
4. Identify unacceptable conditions of internal/external wires cables and connectors.
5. Identify unacceptable conditions of unit cases.
6. Identify unacceptable conditions of spares.

Appendix F to
ENCLOSURE (6)

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.2 MAINTAIN CLEANLINESS OF THE GCS

CONDITION(S): Given the GCS and cleaning materials.

STANDARD: All dirt/foreign material is removed.

PERFORMANCE STEPS:

- 1. Turn off the power.
- 2. Apply anti-corrosive spray to electrical connectors.
- 3. Clean the DCR heads.
- 4. Clean the VCR heads.
- 5. Clean the TV monitor.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.3 SERVICE THE GROUND DATA SYSTEM (GDS) BACKUP BATTERY PACK

CONDITION(S): Given tools, equipment, water, caustic soda/sand fire extinguishing equipment, safety clothing and GDS.

STANDARD: The system is continuously maintained in a clean, serviceable condition.

PERFORMANCE STEPS:

1. Demonstrate the safety procedures specific to this task.
2. Locate/check the appropriate circuit breaker.
3. Locate/check the BCH-2000 power switch.
4. Locate/check the battery.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.4 PERFORM GROUND CONTROL STATION (GCS) AIR
CONDITIONER (AC) PREVENTIVE MAINTENANCE

CONDITION(S): Given tools and the AC unit.

STANDARD: All required items are inspected and discrepancies
identified.

PERFORMANCE STEPS:

1. Perform preventive maintenance as per manufacturers
instructions.
2. Clean the AC filters.
3. Inspect belts, pulleys, and electrical motors.
4. Inspect the AC unit internally and externally.
5. Inspect the refrigeration system sight glass.
6. Inspect the electrical box.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.5 CLEAN THE GROUND CONTROL STATION (GCS) BAY
FILTERS

CONDITION(S): Given tools, filter and GCS, water, and
pressurized air.

STANDARD: All dirt/foreign material is removed.

PERFORMANCE STEPS:

1. Locate the power switches.
2. Verify that the two lower drawers have been removed.
3. Locate filter mounting hardware.
4. Verify that the two lower drawers have been replaced.
5. Apply cleaning materials.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.6 CLEAN THE GROUND CONTROL STATION (GCS)
VENTILATOR

CONDITION(S): Given tools, water ventilator, GCS and pressurized
air.

STANDARD: All dirt/foreign material is removed.

PERFORMANCE STEPS:

1. Locate the power switches.
2. Verify that the two lower drawers have been removed.
3. Locate filter hardware.

MCO 1510.82A
16 Jan 95

4. Remove the ventilator.
5. Verify that the two lower drawers have been replaced.
6. Apply cleaning materials.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.7 PERFORM DC/AC INVERTER FUNCTIONAL AND TROUBLESHOOTING TESTS

CONDITION(S): Given the GCS, tools, test equipment, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: Causes of faults are correctly identified.

PERFORMANCE STEPS:

1. Locate all GCS controls and displays specific to this test.
2. Isolate fault.
3. Identify corrective action.
4. Take corrective action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix F to
ENCLOSURE (6)

TASK: 9815.5.8 REPLACE A TYPICAL PAYLOAD CONTROL MODULE

CONDITION(S): Given tools, GCS, module, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old module.
3. Install the new module.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.9 REPLACE PILOT CONTROL DESK (PCD)

CONDITION(S): Given tools, GCS, PCD, TCD, OCD, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old unit.
3. Install the new unit.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1

MCO 1510.82A
16 Jan 95

2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.10 REPLACE TRACKER CONTROL DESK (TCD)

CONDITION(S): Given tools, GCS, PCD, TCD, OCD, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old unit.
3. Install the new unit.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.11 REPLACE OBSERVER CONTROL DESK (OCD) UNITS

CONDITION(S): Given tools, GCS, PCD, TCD, OCD, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old unit.

Appendix F to
ENCLOSURE (6)

- 3. Install the new unit.
- 4. Perform post-replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.12 REPLACE THE PILOT DISPLAY PANEL (PDP)

CONDITION(S): Given tools, GCS, PDP, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old PDP.
- 3. Install the new PDP.
- 4. Perform post-replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.13 REPLACE THE OBSERVER VIDEO CONTROL (OVC) PANEL

CONDITION(S): Given tools, GCS, OVC, and NAVAIR A1-SRRPV-GCS-510.

MCO 1510.82A
16 Jan 95

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old OVC.
3. Install the new OVC.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.14 TEST AND REPLACE THE PLOTTER

CONDITION(S): Given tools, GCS, plotter, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old plotter.
3. Install the new plotter.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix F to
ENCLOSURE (6)

TASK: 9815.5.15 REPLACE PILOT CONTROL TABLE (PCT)

CONDITION(S): Given tools, GCS, PCT, OCT, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly placed and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old units.
3. Install the new unit.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.16 REPLACE OBSERVER CONTROL TABLE (OCT) UNITS

CONDITION(S): Given tools, GCS, PCT, OCT, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old units.
3. Install the new unit.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.17 REPLACE PC BOARDS

CONDITION(S): Given tools, PC Boards, a GCS Bay, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old PC board.
3. Install the new PC board.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.18 REPLACE THE POWER SUPPLY MODULE

CONDITION(S): Given tools, PS module, a GCS bay, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old PS module.
- 3. Install the new PS module.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.19 PERFORM GCS/TCU RDC POWER SUPPLY ADJUSTMENT PROCEDURES

CONDITION(S): Given the GCS/TCU, tools, equipment, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: Adjustment is properly performed once corrective action is identified.

PERFORMANCE STEPS:

- 1. Locate the voltage adjustment trigger.
- 2. Identify corrective action.
- 3. Take corrective action.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9815.5.20 REPLACE PUSHBUTTONS

CONDITION(S): Given tools, pushbuttons, a GCS bay, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old pushbutton.
3. Install the new pushbutton.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.21 REPLACE LIGHT BULBS IN THE INDICATOR LAMPS

CONDITION(S): Given tools, bulbs, indicator lamps, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old bulb.
3. Install the new bulb.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1

Appendix F to
ENCLOSURE (6)

2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.5.22 REPLACE LIGHT BULBS IN PUSHBUTTONS

CONDITION(S): Given tools, bulbs, pushbuttons, and NAVAIR A1-SRRPV-GCS-510.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old bulb.
- 3. Install the new bulb.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-510

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 6 - MAINTAIN THE REMOTE RECEIVING STATION (RRS)

TASK: 9815.6.1 PERFORM A REMOTE RECEIVING STATION GENERAL CHECK

CONDITION(S): Given the RRS and NAVAIR A1-SRRPV-RRS-900.

STANDARD: A check of the RRS identifies all unacceptable conditions.

PERFORMANCE STEPS:

1. Check RRS mounting hardware.
2. Check all controls and displays.
3. Identify unacceptable conditions of RRS equipment.
4. Identify unacceptable conditions of RRS electrical connectors and cables.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-RRS-900

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.6.2 PERFORM FAULT LOCALIZATION AND ISOLATION

CONDITION(S): Given failure symptoms, RRS, and NAVAIR A1-SRRPV-RRS-900

STANDARD: All faults are identified and corrected.

PERFORMANCE STEPS:

1. Identify the function of RRS modules, units and sub-assemblies.
2. Identify fault locations.
3. Isolate faults.
4. Take corrective action.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-RRS-900

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.6.3 REPLACE THE DIRECTIONAL ANTENNA

CONDITION(S): Given tools, TUA, antenna assembly, and NAVAIR A1-SRRPV-RRS-900.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old directional antenna.
- 3. Install the new directional antenna.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-RRS-900

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.6.4 REPLACE THE PEDESTAL MOTOR ELECTRICAL BRUSHES

CONDITION(S): Given tools, TUA, antenna assembly, and NAVAIR A1-SRRPV-RRS-900.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

MCO 1510.82A
16 Jan 95

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old pedestal motor electrical brushes.
3. Install the new pedestal motor electrical brushes.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-RRS-900

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.6.5 REPLACE THE RECEIVER UNIT

CONDITION(S): Given tools, RRS, receiver unit, and NAVAIR A1-SRRPV-RRS-900.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Remove the old receiver unit.
2. Install the new receiver unit.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-RRS-900

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix F to
ENCLOSURE (6)

TASK: 9815.6.6 REPLACE THE FRONT PANEL ASSEMBLY

CONDITION(S): Given tools, RRS, Front Panel Assembly, and NAVAIR A1-SRRPV-RRS-900.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Remove the old front panel assembly.
- 2. Install the new front panel assembly.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-RRS-900

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.6.7 REPLACE THE POWER SUPPLY BOX ASSEMBLY (PSBA)

CONDITION(S): Given tools, RRS, PSBA, and NAVAIR A1-SRRPV-RRS-900.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Remove the old PSBA.
- 2. Install the new PSBA.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-RRS-900

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9815.6.8 REPLACE THE COMMAND PANEL

CONDITION(S): Given tools, RRS, Command Panel Assembly, and NAVAIR A1-SRRPV-RRS-900.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Remove the old command panel.
2. Install the new command panel.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-RRS-900

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.6.9 REPLACE THE OMNI ANTENNA

CONDITION(S): Given tools, RRS, Omni antenna, and NAVAIR A1-SRRPV-RRS-900.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Remove the old omni antenna.
2. Install the new omni antenna.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-RRS-900

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix F to
ENCLOSURE (6)

DUTY AREA 7 - MAINTAIN THE PORTABLE CONTROL STATION

TASK: 9815.7.1 PERFORM A PORTABLE CONTROL STATION (PCS) DAILY INSPECTION

CONDITION(S): Given a PCS and MRC's.

STANDARD: All required items are inspected and discrepancies identified.

PERFORMANCE STEPS:

1. Identify unacceptable conditions of the front panel controls and displays.
2. Locate unit and sub-assembly mounting hardware.
3. Identify the unacceptable conditions of internal and external wires, cables, and connectors.
4. Identify unacceptable conditions of unit cases.
5. Identify unacceptable conditions of spares.
6. Service the batteries.
7. Conduct bay automatic tests.
8. Conduct bay interactive tests.
9. Take corrective action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610
3. MRC 6-1.3

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9815.7.2 CLEAN THE PORTABLE CONTROL STATION (PCS)

CONDITION(S): Given PCS, cloth, water, and mild soap.

STANDARD: All dirt/foreign material is removed.

PERFORMANCE STEPS:

1. Locate the PCS power switch.
2. Identify unacceptable conditions of PCS electrical connectors.
3. Apply cleaning materials.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.3 CLEAN THE EDAK CASE FILTER

CONDITION(S): Given the EDAK Filter, water, and pressurized air.

STANDARD: All dirt/foreign material is removed.

PERFORMANCE STEPS:

1. Locate the EDAK filter.
2. Identify unacceptable conditions of PCS electrical connectors.
3. Apply cleaning materials.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix F to
ENCLOSURE (6)

TASK: 9815.7.4 SERVICE THE PCS BACKUP BATTERY PACK

CONDITION(S): Given the tools, equipment, water, caustic soda/sand fire extinguishing equipment, safety clothing, and PCS.

STANDARD: The system is continuously maintained in a clean, serviceable condition.

PERFORMANCE STEPS:

1. Demonstrate the safety procedures specific to battery maintenance.
2. Locate/check the appropriate circuit breaker.
3. Locate/check the 28volt power switch.
4. Locate/check the batteries.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.5 REPLACE THE 28 VOLT POWER SUPPLY

CONDITION(S): Given the EPS and PBX.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Locate power supply.
2. Locate power supply potentiometer.
3. Remove the old 28 volt power supply.
4. Install the new 28 volt power supply.
5. Perform post replacement procedures.

Appendix F to
ENCLOSURE (6)

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.6 PERFORM A TROUBLESHOOTING/FUNCTIONAL TEST FOR THE ELECTRONIC POWER SUPPLY SYSTEM

CONDITION(S): Given failure symptoms, the PCS, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: Causes of faults are correctly identified.

PERFORMANCE STEPS:

1. Locate the fail check button.
2. Locate the fault.
3. Take corrective action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.7 REPLACE CASE-MOUNTED UNITS

CONDITION(S): Given tools, unit, case, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.

Appendix F to
ENCLOSURE (6)

- 2. Remove the old units.
- 3. Install the new units.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.8 REPLACE THE CONTROL TABLE

CONDITION(S): Given tools, PCS, control table, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old control table.
- 3. Install the new control table.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9815.7.9 REPLACE THE DESK UNIT

CONDITION(S): Given tools, PCS, Desk Unit, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old desk unit.
3. Install the new desk unit.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.10 REPLACE PRINTED CIRCUIT (PC) BOARDS

CONDITION(S): Given tools, PC board, PCS, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old PC board.
3. Install the new PC board.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1

Appendix F to
ENCLOSURE (6)

6-F-70

2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.11 REPLACE PUSHBUTTONS

CONDITION(S): Given tools, PCS-CPS Front Panel, pushbuttons, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old pushbutton.
3. Install the new pushbutton.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.12 REPLACE LIGHT BULBS IN INDICATOR LAMPS

CONDITION(S): Given tools, bulbs, indicator lamps, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old light bulb.

MCO 1510.82A
16 Jan 95

3. Install the new light bulb.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.13 REPLACE LIGHT BULBS IN PUSHBUTTONS

CONDITION(S): Given tools, bulbs, pushbuttons, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old bulb.
3. Install the new bulb.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.14 REPLACE THE G-Band DIRECTIONAL ANTENNA

CONDITION(S): Given tools, antenna pedestal, PCS, NAVAIR A1-SRRPV-PCS-610, and UAV.

Appendix F to
ENCLOSURE (6)

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Remove the old antenna.
- 2. Install the new antenna.
- 3. Perform the post replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.15 REPLACE THE G-Band OMNI ANTENNA

CONDITION(S): Given tools, antenna pedestal, PCS, NAVAIR A1-SRRPV-PCS-610, and UAV.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Remove the old antenna.
- 2. Install the new antenna.
- 3. Perform the post replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9815.7.16 REPLACE THE UHF ANTENNA

CONDITION(S): Given tools, antenna pedestal, PCS, UAV and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Remove the old antenna.
2. Install the new antenna.
3. Perform post replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.17 REPLACE THE RF BOX

CONDITION(S): Given tools, Horn/OMNI Antennas, RF Box, pedestal, PCS, UAV, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Remove the old RF box.
2. Install the new RF box.
3. Perform post replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

Appendix F to
ENCLOSURE (6)

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.18 REPLACE THE RF PEDESTAL

CONDITION(S): Given tools, horn/OMNI antennas, RF box, pedestal equipment plate, PCS, UAV, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Remove the old RF pedestal.
2. Install the new RF pedestal.
3. Perform post replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.19 REPLACE THE G-Band RECEIVER (RXC)

CONDITION(S): Given tools, RF Table, RXC, PCS, UAV and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old RXC.
3. Install the new RXC.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.20 REPLACE THE G-Band TRANSMITTER (TX SP/SP)

CONDITION(S): Given tools, RF Table, TX SP/SP, PCS, UAV, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old TX SP/SP.
3. Install the new TX SP/SP.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.21 REPLACE THE UHF TRANSMITTER (TX UHF)

CONDITION(S): Given tools, RF Table, TXUHF, PCS, NAVAIR A1-SRRPV-PCS-610, and UAV.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old TXUHF.
- 3. Install the new TXUHF.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.22 REPLACE THE MICROPROCESSOR CONTROLLED AUTOTRACKER (MCAT)

CONDITION(S): Given tools, EDC, PCS, UAV and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old MCAT.
- 3. Install the new MCAT.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9815.7.23 REPLACE THE ENCODER/DECODER CAGE (EDC)

CONDITION(S): Given tools, MCAT, PCS, UAV and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old EDC.
3. Install the new EDC.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.24 REPLACE THE COMMUNICATION CONTROL BOX (CCB)

CONDITION(S): Given tools, CCB, PCS, UAV and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old CCB.
3. Install the new CCB.
4. Perform post-replacement procedures.

Appendix F to
ENCLOSURE (6)

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.25 PERFORM A PCS G-Band TRANSMISSION FREQUENCY TEST

CONDITION(S): Given failure symptoms, PCS antenna array, tools, test equipment, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The test is performed per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Locate power switches.
- 2. Perform test set up procedures.
- 3. Locate electrical connector J5 on the EDC.
- 4. Locate all PCD controls and displays specific to this test.
- 5. Perform test.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.26 PERFORM A PCS G-Band TRANSMITTER MODULATION TEST

CONDITION(S): Given failure symptoms, PCS antenna array, tools, test equipment, and NAVAIR A1-SRRPV-PCS-610.

MCO 1510.82A
16 Jan 95

STANDARD: The test is performed per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Locate all power switches.
2. Perform test set up procedures.
3. Locate all PCD controls and displays specific to this test.
4. Perform test.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.27 PERFORM A PCS UHF TRANSMITTER FREQUENCY TEST

CONDITION(S): Given failure symptoms, PCS antenna array, tools, test equipment, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The test is performed per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Locate all power switches
2. Perform test set up procedures.
3. Locate all PCD controls and displays specific to this test.
4. Perform test.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

Appendix F to
ENCLOSURE (6)

6-F-80

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.28 PERFORM A PCS UHF TRANSMITTER MODULATION TEST

CONDITION(S): Given failure symptoms, PCS antenna array, tools, test equipment, NAVAIR A1-SRRPV-PCS-610, and UAV.

STANDARD: The test is performed per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Locate all power switches.
2. Perform test set up procedures.
3. Locate all PCD controls and displays specific to this test.
4. Perform test.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.29 PERFORM A PCS TRANSMITTER BI-PHASE IN AMPLITUDE TEST

CONDITION(S): Given failure symptoms, PCS antenna array, tools, test equipment, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The test is performed per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Locate all power switches.
2. Perform test set up procedures.
3. Perform test.

Appendix F to
ENCLOSURE (6)

MCO 1510.82A
16 Jan 95

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.30 PERFORM A PCS RECEIVER TM CHANNEL SENSITIVITY TEST

CONDITION(S): Given failure symptoms, PCS antenna array, tools, test equipment, UAV, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The test is performed per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Locate all power switches.
2. Perform test set up procedures.
3. Locate all PCS controls and displays specific to this test.
4. Locate all RF plate electrical connectors specific to this test.
5. Perform test.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix F to
ENCLOSURE (6)

6-F-82

TASK: 9815.7.31 PERFORM A PCS RECEIVER VIDEO CHANNEL
SENSITIVITY TEST

CONDITION(S): Given failure symptoms, PCS antenna array, tools,
test equipment, UAV with payload, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The test is performed per prescribed procedures
contained in the reference.

PERFORMANCE STEPS:

1. Locate all power switches.
2. Perform test set up procedures.
3. Locate all PCS controls and displays specific to this
test.
4. Perform test.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.32 PERFORM A PCS G-Band TRANSMISSION POWER TEST

CONDITION(S): Given failure symptoms, TCU, tools, test
equipment, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The test is performed per prescribed procedures
contained in the reference.

PERFORMANCE STEPS:

1. Locate all power switches.
2. Perform test set up procedures.
3. Locate all PCS controls and displays specific to this
test.
4. Perform test.

Appendix F to
ENCLOSURE (6)

MCO 1510.82A
16 Jan 95

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.7.33 PERFORM A PCS UHF TRANSMISSION POWER TEST

CONDITION(S): Given failure symptoms, PCS antenna array, tools, test equipment, and NAVAIR A1-SRRPV-PCS-610.

STANDARD: The test is performed per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Locate all power switches.
2. Perform test set up procedures.
3. Locate all PCS controls and displays specific to this test.
4. Perform test.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-610

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix F to
ENCLOSURE (6)

DUTY AREA 8 - DEPLOY THE GROUND CONTROL SYSTEM (GCS), PORTABLE
CONTROL STATION (PCS) AND THE TRACKING AND COMMUNICATIONS UNIT
(TCU)

TASK: 9815.8.1 DEPLOY THE GROUND CONTROL SYSTEM (GCS)

CONDITION(S): Given tools, equipment, the GCS, and NAVAIR A1-SRRPV-GCS-500.

STANDARD: The GCS is properly sited and deployed.

PERFORMANCE STEPS:

1. Position the generator.
2. Position the GCS.
3. Connect external cabling.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.8.2 DEPLOY THE PORTABLE CONTROL STATION (PCS)

CONDITION(S): Given tools, equipment, the PCS, and NAVAIR A1-SRRPV-PCS-600.

STANDARD: The PCS is properly sited and deployed.

PERFORMANCE STEPS:

1. Erect the G-Band omni antenna.
2. Erect the UHF antenna.
3. Locate generator electrical connectors.
4. Locate PCS electrical connectors.
5. Connect external cabling.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-PCS-600

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.8.3 DEPLOY THE TRACKING AND COMMUNICATIONS UNIT (TCU)

CONDITION(S): Given tools, equipment, the TCU, NAVAIR A1-SRRPV-GCS-500, GCS, and Beacon Unit.

STANDARD: The TCU is properly sited and deployed.

PERFORMANCE STEPS:

1. Level the tracking antenna.
2. Locate all station controls and displays specific to this procedure.
3. Perform antenna north alignment.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GCS-500

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.8.4 INSPECT THE SYSTEM EXTERNAL CABLING

CONDITION(S): Given a deployed system.

STANDARD: All required items are inspected and discrepancies identified.

PERFORMANCE STEPS:

1. Locate external cabling.

Appendix F to
ENCLOSURE (6)

- 2. Correct the unacceptable conditions of external cabling.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-500
- 3. NAVAIR A1-SRRPV-PCS-600

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9815.8.5 PREPARE FOR MOVEMENT

CONDITION(S): Given the GCS/TCU, PCS, NAVAIR A1-SRRPV-GCS-500, NAVAIR A1-SRRPV-PCS-600 and tools.

STANDARD: All equipment is properly disassembled and prepared for movement.

PERFORMANCE STEPS:

- 1. Disassemble the Ground Control Station (GCS).
- 2. Disassemble the Portable Control Station (PCS).
- 3. Disassemble the Tracking and Communication Unit (TCU).

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GCS-500
- 3. NAVAIR A1-SRRPV-PCS-600

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MOS 9816, MECHANICAL MAINTENANCE TECHNICIAN

DUTY AREA 1 - MAINTAIN THE AIRFRAME

TASK: 9816.1.1 ASSEMBLE THE UAV

CONDITION(S): Given the UAV and tools.

STANDARD: The UAV is assembled correctly. Wing pins are installed bottom to top. Wing to fuselage fins are installed fore to AFT.

PERFORMANCE STEPS:

1. Remove the UAV from the container.
2. Connect UAV wings.
3. Attach the wings to the fuselage.
4. Attach booms to the wings.
5. Attach tail to the booms.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.2 DISASSEMBLE THE UAV

CONDITION(S): Given the UAV, tools, and required personnel.

STANDARD: The UAV is disassembled correctly.

PERFORMANCE STEPS:

1. Remove tail from the booms.
2. Remove booms from the wings.

Appendix G to
ENCLOSURE (6)

MCO 1510.82A
16 Jan 95

3. Remove wings from the fuselage.
4. Disconnect UAV wings.
5. Store the UAV in the container.

REFERENCE(S) :

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.3 PERFORM UAV SPECIAL INSPECTIONS

CONDITION(S): Given the UAV, tools, maintenance requirement cards, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: The inspections are completed per prescribed procedures contained in the NAVAIR A1-SRRPV-MMI-200.

PERFORMANCE STEPS:

1. Locate UAV.
2. Identify correct inspection type.
3. Perform inspection.

REFERENCE(S) :

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.4 PERFORM UAV PREFLIGHT CHECKS

CONDITION(S): Given the UAV, equipment, and NAVAIR A1-SRRPV-MMI-200.

Appendix G to
ENCLOSURE (6)

STANDARD: Preflight the UAV as per the NAVAIR A1-SRRPV-MMI-200.

PERFORMANCE STEPS:

1. Install the charged battery emergency unit (BEU) in the UAV.
2. Verify that the UAV automatic test has been conducted.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.5 PERFORM THE IFF TRANSPONDER TEST

CONDITION(S): Given the UAV transponder and power supply, tools, test set, 02A-10, and IFF transponder TM.

STANDARD: The test is conducted per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Locate all controls and displays specific to the IFF transponder test.
2. Identify the function of all controls and displays specific to the IFF transponder test.
3. Identify corrective action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.6 PERFORM UAV POST-FLIGHT CHECKS

CONDITION(S): Given the UAV tools, and equipment.

STANDARD: All post-flight checks are completed correctly and discrepancies identified.

PERFORMANCE STEPS:

1. Identify external airframe components specific to this procedure.
2. Identify unacceptable conditions of external airframe components.
3. Identify arresting hook assembly components.
4. Check for unacceptable conditions of the propeller.
5. Verify that the battery has been removed for charging.
6. Verify that the video switch is in the OFF position.
7. Verify that all switches are in the OFF position.

REFERENCE(S):

1. FM 3-22-1
2. MRC A-1-P10-RPV
3. NAVAIR A1-SRRPV-MMI-200, para 4-1.11.3.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.7 INSPECT THE UAV AFTER HARD LANDING

CONDITION(S): Given the UAV.

STANDARD: A complete inspection is conducted and discrepancies identified.

PERFORMANCE STEPS:

1. Identify internal and external airframe components specific to this procedure.

- 2. Check for unacceptable conditions of UAV nose area components.
- 3. Check for unacceptable conditions of any main fuselage components.
- 4. Check main landing gear for delamination.
- 5. Check for unacceptable conditions of any wing components.
- 6. Check for unacceptable conditions of tail/boom assembly components.
- 7. Verify that engine checkout has been performed.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. MRC A-1-P10-RPV
- 3. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.8 REPAIR DAMAGE TO FIBERGLASS SKIN

CONDITION(S): Given the UAV, materials, and equipment.

STANDARD: The fiberglass skin is repaired correctly.

PERFORMANCE STEPS:

- 1. Identify damage.
- 2. Conduct standard safety procedures for repairing damage to fiberglass.
- 3. Complete the repairs.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.9 REPAIR DAMAGE TO THE POLYURETHANE CORE

CONDITION(S): Given the UAV, materials, and equipment.

STANDARD: The polyurethane core is repaired correctly.

PERFORMANCE STEPS:

1. Identify damage.
2. Conduct standard safety procedures for repairing damage to the polyurethane core.
3. Complete the repairs.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.10 REPAIR DAMAGE TO THE BALSA WOOD CORE

CONDITION(S): Given the UAV, materials, and equipment.

STANDARD: The balsa wood core is repaired correctly.

PERFORMANCE STEPS:

1. Identify damage.
2. Conduct standard safety procedures for repairing damage to Balsa Wood Core.
3. Complete the repairs.

REFERENCE(S):

1. FM 3-22-1

2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.11 REPAIR FIBERGLASS SKIN COATED WITH DOPE

CONDITION(S): Given the UAV, materials, and equipment.

STANDARD: The repairs are completed correctly.

PERFORMANCE STEPS:

1. Identify damage.
2. Conduct standard safety procedures when repairing damage to fiberglass skin coated with dope.
3. Complete the repairs.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.12 INSPECT UAV WINGS

CONDITION(S): Given the UAV.

STANDARD: The UAV wings are inspected and all discrepancies identified.

PERFORMANCE STEPS:

1. Identify unacceptable conditions of UAV wing surface.
2. Identify unacceptable conditions of aileron hinges and linkages.
3. Take appropriate action based on inspection results.

MCO 1510.82A
16 Jan 95

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.13 REPLACE UAV WINGS

CONDITION(S): Given the UAV.

STANDARD: Wings are replaced using correct procedures.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old UAV wing assembly.
3. Install the new UAV wing assembly.
4. Perform the UAV wing post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.14 INSPECT THE TAIL ASSEMBLY

CONDITION(S): Given the UAV, tools, and materials.

STANDARD: The tail assembly is inspected and all discrepancies identified.

PERFORMANCE STEPS:

1. Identify unacceptable conditions of tail surface.

Appendix G to
ENCLOSURE (6)

- 2. Identify unacceptable conditions of linkages and attachments.
- 3. Take appropriate action based on inspection results.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.15 REPLACE THE TAIL ASSEMBLY

CONDITION(S): Given the UAV, tools, and materials.

STANDARD: The tail assembly is replaced using correct procedures.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old UAV tail assembly.
- 3. Install the new UAV tail assembly.
- 4. Perform the return to service procedures for the UAV tail assembly.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.16 REPLACE BOOMS

CONDITION(S): Given the UAV, tools, and materials.

MCO 1510.82A
16 Jan 95

STANDARD: Booms are replaced using correct procedures.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Perform removal procedures.
3. Perform installation procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.17 INSPECT VERTICAL STABILIZERS

CONDITION(S): Given the UAV.

STANDARD: The vertical stabilizers are inspected and all discrepancies identified.

PERFORMANCE STEPS:

1. Identify unacceptable conditions of the vertical stabilizer surface.
2. Identify unacceptable condition of the rudders and linkage.
3. Take appropriate action based on inspection results.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

6-G-10

TASK: 9816.1.18 REPLACE THE RIGHT VERTICAL STABILIZER

CONDITION(S): Given the UAV, tools, materials, and stabilizer.

STANDARD: The right vertical stabilizer is replaced using correct procedures.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old right vertical stabilizer.
3. Perform the right vertical stabilizer installation procedures.
4. Perform the post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.19 REPLACE THE LEFT VERTICAL STABILIZER

CONDITION(S): Given the UAV, tools, materials, and stabilizer.

STANDARD: The left vertical stabilizer is replaced using correct procedures.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old left vertical stabilizer.
3. Install the new left vertical stabilizer.
4. Perform the post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1

2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.20 PERFORM NOSE LANDING GEAR PREVENTIVE MAINTENANCE

CONDITION(S): Given the UAV tools, and materials.

STANDARD: Preventive maintenance is performed IAW the reference.

PERFORMANCE STEPS:

1. Locate the nose landing gear grease fitting.
2. Apply lubricant.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.21 REPLACE THE NOSE LANDING GEAR

CONDITION(S): Given the UAV, tools, materials, and gear.

STANDARD: The nose landing gear is replaced using correct procedures.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old nose landing gear.
3. Install the new nose landing gear.
4. Perform post-replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.22 PERFORM MAIN LANDING GEAR PREVENTIVE MAINTENANCE

CONDITION(S): Given the UAV, tools, and materials.

STANDARD: Preventive maintenance is performed IAW the reference.

PERFORMANCE STEPS:

- 1. Locate the main landing gear grease fittings.
- 2. Apply lubricant.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.23 REPLACE THE MAIN LANDING GEAR

CONDITION(S): Given the UAV, tools, materials, and gear.

STANDARD: The main landing gear is replaced using correct procedures. Ensure proper safety sire is used, .032.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old main landing gear.
- 3. Install the new main landing gear.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.24 REPLACE THE MAIN LANDING GEAR WHEELS

CONDITION(S): Given the UAV, tools, materials, and wheels.

STANDARD: The main landing gear wheels are replaced using correct procedures.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old main landing gear wheels.
3. Install the new main landing gear wheels.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.25 REPLACE THE MAIN LANDING GEAR TIRES

CONDITION(S): Given the UAV, tools, and tires.

STANDARD: The main landing gear tires are replaced using correct procedures.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old main landing gear tires.

Appendix G to
ENCLOSURE (6)

3. Install the new main landing gear tires.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.26 INSPECT THE ARRESTING HOOK ASSEMBLY
CONDITION(S): Given the UAV.

STANDARD: The arresting hook assembly is inspected and all discrepancies identified.

PERFORMANCE STEPS:

- 1. Locate the UAV arresting hook assembly.
- 2. Complete the checklist.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.27 REPLACE THE ARRESTING HOOK

CONDITION(S): Given the UAV, tools, materials, and hook.

STANDARD: The arresting hook is replaced using correct procedures.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old arresting hook.

3. Install the new arresting hook.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.28 REPLACE THE CATCH-RELEASE MECHANISM

CONDITION(S): Given the UAV, tools, materials, and mechanism.

STANDARD: The catch-release mechanism is replaced using correct procedures.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old catch-release mechanism.
3. Install the new catch-release mechanism.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.29 INSPECT THE LAUNCHER GUIDES

CONDITION(S): Given the UAV.

STANDARD: The launcher guides are inspected and all discrepancies identified.

PERFORMANCE STEPS:

1. Identify unacceptable conditions of the launcher guide.

2. Take appropriate action based on inspection results.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.30 REPLACE THE LAUNCHER GUIDES

CONDITION(S): Given the UAV, tools, materials, and parts.

STANDARD: The launcher guides are replaced using correct procedures.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old launcher guide.
- 3. Install the new launcher guide.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.31 REPLACE THE PAYLOAD SHIELD

CONDITION(S): Given the UAV, tools, shield, and PCS/GCS.

STANDARD: The payload shield is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Remove the old payload shield.

MCO 1510.82A
16 Jan 95

2. Install the new payload shield.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.32 REPLACE THE RATO PLATES

CONDITION(S): Given the UAV, tools, materials, and parts.

STANDARD: The RATO plates are replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Remove the old RATO plates.
2. Install the new RATO plates.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.33 REPLACE THE BATTERY EMERGENCY UNIT (BEU)

CONDITION(S): Given the UAV, tools, and BEU.

STANDARD: The BEU are replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old BEU.

Appendix G to
ENCLOSURE (6)

- 3. Install the new BEU.
- 4. Perform the post-replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.34 REPLACE THE LIGHT CONTROL UNIT (LCU)

CONDITION(S): Given the UAV, tools, LCU, and PCS/GCS.

STANDARD: The LCU is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old LCU.
- 3. Install the new LCU.
- 4. Perform the post-replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.35 REPLACE THE NOSE LIGHT ASSEMBLY

CONDITION(S): Given the UAV, tools, light assembly and PCS/GCS.

MCO 1510.82A
16 Jan 95

STANDARD: The nose light assembly is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old nose light assembly.
3. Install the new nose light assembly.
4. Perform the post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.36 REPLACE THE STROBE LIGHT ASSEMBLY

CONDITION(S): Given the UAV, tools, light assembly and PCS/GCS.

STANDARD: The strobe light assembly is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old strobe light assembly.
3. Install the new strobe light assembly.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

6-G-20

TASK: 9816.1.37 REPLACE THE LEFT/RIGHT VERTICAL STABILIZER LIGHTS ASSEMBLY

CONDITION(S): Given tools, equipment, light assembly, UAV, and GCS/PCS.

STANDARD: The vertical stabilizer lights assembly is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old assembly.
3. Install the new assembly.
4. Perform the post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.1.38 REPLACE THE LEFT/RIGHT WING LIGHT ASSEMBLIES

CONDITION(S): Given tools, equipment, light assemblies, UAV, and GCS/PCS.

STANDARD: The wing light assemblies are replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old assembly.
3. Install the new assembly.
4. Perform the post-replacement procedures.

MCO 1510.82A
16 Jan 95

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 2 - MAINTAIN THE ENGINE/PROPULSION SYSTEM

TASK: 9816.2.1 PERFORM ENGINE PRE-START CHECKS

CONDITION(S): Given the UAV, tools, and materials.

STANDARD: All engine pre-start checks are performed correctly and per proper procedures.

PERFORMANCE STEPS:

1. Locate/check the UAV fuel drain valve.
2. Locate/check all the UAV fuel lines.
3. Locate/check all engine fasteners, screws, and nuts.
4. Locate/check all engine electrical cables and connections.
5. Locate/check the engine alternator coupling.
6. Lubricate the engine.
7. Locate/check GCS/PCS engine indicators.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

TASK: 9816.2.2 START THE ENGINE

CONDITION(S): Given the UAV and engine starter.

STANDARD: Ensure switches are all on. The engine is started using correct procedures.

PERFORMANCE STEPS:

- 1. Prime the engine.
- 2. Activate the engine starter.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.3 PERFORM ENGINE RUN-UP

CONDITION(S): Given the UAV and feedback from technician.

STANDARD: Engine run-up is performed using correct procedures. Engine RPM should be 3200 RPM + 100.

PERFORMANCE STEPS:

- 1. Locate/check PCS/GCS controls and indicators.
- 2. Check throttle adjustment.
- 3. Perform post-runup procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.4 TROUBLESHOOT THE ENGINE

CONDITION(S): Given the failure symptom, tools, and equipment.

STANDARD: Engine failure symptoms are identified through troubleshooting.

PERFORMANCE STEPS:

1. Identify engine failure symptoms.
2. Execute troubleshooting procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.5 ADJUST THE THROTTLE CABLE

CONDITION(S): Given the UAV, tools, and equipment.

STANDARD: Adjustment is completed using proper procedures.

PERFORMANCE STEPS:

1. Locate the external air vehicle components.
2. Locate the throttle servo components, cable, and connectors.
3. Demonstrate use of tools and test equipment.
4. Locate carburetor throttle components.
5. Adjust to proper specifications.

REFERENCE(S):

1. FM 3-22-1

Appendix G to
ENCLOSURE (6)

2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.6 INSPECT THE MAGNETO GAP

CONDITION(S): Given the UAV, tools, and materials.

STANDARD: The magneto gap is inspected and all discrepancies identified.

PERFORMANCE STEPS:

- 1. Locate/check the magneto mounting hardware.
- 2. Locate/check the magneto and flywheel.
- 3. Identify discrepancies.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.7 REPLACE THE MAGNETO

CONDITION(S): Given the UAV, tools, and materials.

STANDARD: The magneto is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old magneto.
- 3. Install the new magneto.

4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.8 PRE-LUBRICATE THE ENGINE

CONDITION(S): Given the UAV, tools, and materials.

STANDARD: The engine is lubricated per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Locate special tools and materials.
2. Locate the engine components.
3. Demonstrate the use of special tools for this procedure.
4. Apply lubricant.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.9 REPLACE SPARK PLUGS

CONDITION(S): Given the UAV, tools, and materials.

STANDARD: The spark plugs are replaced per prescribed procedures contained in the reference. Ensure to gap the new plugs to specification.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old spark plugs.
3. Install the new spark plugs.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.10 INSPECT THE ENGINE AFTER OVER-TEMPERATURE CONDITION

CONDITION(S): Given the UAV, tools, and materials.

STANDARD: The engine is inspected and all discrepancies identified.

PERFORMANCE STEPS:

1. Identify over temperature condition.
2. Identify discrepancies.
3. Replace the engine.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.11 REPLACE THE ENGINE

CONDITION(S): Given the UAV, engine, tools, and materials.

STANDARD: The engine is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old engine.
3. Install the new engine.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.12 INSPECT THE PROPELLER

CONDITION(S): Given the UAV.

STANDARD: All discrepancies are identified.

PERFORMANCE STEPS:

1. Locate the propeller.
2. Identify unacceptable conditions of the propeller.

REFERENCE(S):

1. FM 3-22-1

2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.13 REPAIR PROPELLER

CONDITION(S): Given the tools, epoxy, and propeller.

STANDARD: The propeller is repaired per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Locate indentations on the propeller.
- 2. Mix epoxy.
- 3. Repair propeller.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.14 REPLACE THE PROPELLER

CONDITION(S): Given the UAV, tools, and propeller.

STANDARD: The propeller is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old propeller.
- 3. Install the new propeller.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.15 PREPARE THE ENGINE FOR STORAGE

CONDITION(S): Given engine and materials.

STANDARD: The procedure is performed IAW the reference.

PERFORMANCE STEPS:

1. Locate the fuel system components.
2. Locate the spark plugs.
3. Locate the carburetor and components.
4. Locate all materials used in this procedure.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.16 REPLACE THE AIR INTAKE COVERS

CONDITION(S): Given the engine, tools, and materials.

STANDARD: The air intake covers are replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.

- 2. Remove the old air intake covers.
- 3. Install the new air intake covers.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.17 REPLACE THE REGULATOR ELECTRICAL UNIT (REU)

CONDITION(S): Given tools, equipment, REU, UAV, and GCS/PCS.

STANDARD: The REU is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old REU.
- 3. Install the new REU.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9816.2.18 REPLACE THE GENERATOR ELECTRICAL UNIT (GEU)
CONDITION(S): Given tools, equipment, UAV, and GEU.

STANDARD: The GEU is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old GEU.
3. Install the new GEU.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.19 REPLACE THE ENGINE RPM/CUTOFF UNIT (ERC)

CONDITION(S): Given tools, equipment, ERC, UAV, and GCS/PCS.

STANDARD: The ERC is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old ERC.
3. Install the new ERC.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1

Appendix G to
ENCLOSURE (6)

2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.20 REPLACE THE ENGINE THERMOCOUPLE HARNESS (ETH)

CONDITION(S): Given tools, equipment, ETH, UAV, and GCS/PCS.

STANDARD: The ETH is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old ETH.
- 3. Install the new ETH.
- 4. Perform post-replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.21 REPLACE THE ENGINE THERMOCOUPLE UNIT (ETC)

CONDITION(S): Given tools, equipment, ETC, UAV, and GCS/PCS.

STANDARD: The ETC is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old ETC.

MCO 1510.82A
16 Jan 95

3. Install the new ETC.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.2.22 REPLACE THE ENGINE CUT TRAP

CONDITION(S): Given UAV, equipment, and materials.

STANDARD: The engine cut trap is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old cut trap.
3. Install the new cut trap.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

DUTY AREA 3 - MAINTAIN THE FUEL SYSTEM

TASK: 9816.3.1 OPERATE THE UAV REFUELING DEVICE

CONDITION(S): Given the UAV and device.

STANDARD: The oil mixture is 50:1 and the oil used is B.I.A. certified.

PERFORMANCE STEPS:

- 1. Fill the refueling device.
- 2. Mix the fuel.
- 3. Dispense the fuel.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.3.2 RE-FUEL THE UAV

CONDITION(S): Given the UAV, equipment, and materials.

STANDARD: Refueling is performed IAW the reference. The proper fuel is filled to the correct level.

PERFORMANCE STEPS:

- 1. Identify refueling requirements.
- 2. Locate fuel.
- 3. Fill to the prescribed level.

REFERENCE(S):

- 1. FM 3-22-1

2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.3.3 REPLACE THE FUEL LEVEL SENSOR

CONDITION(S): Given the UAV, gauge, and tools.

STANDARD: The fuel level sensor is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old fuel level sensor.
3. Install the new fuel level sensor.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.3.4 REPLACE THE FUEL INLET FILTER

CONDITION(S): Given the UAV, filter, and tools.

STANDARD: The fuel inlet filter is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old fuel inlet filter.

- 3. Install the new fuel inlet filter.
- 4. Perform post-replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.3.5 REPLACE THE IN-LINE FUEL FILTER

CONDITION(S): Given the UAV, filter, and tools.

STANDARD: The in-line fuel filter is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old in-line fuel filter.
- 3. Install the new in-line fuel filter.
- 4. Perform post-replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.3.6 REPLACE THE FUEL DRAIN VALVE

CONDITION(S): Given the UAV, valve, and tools.

MCO 1510.82A
16 Jan 95

STANDARD: The fuel drain valve is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old fuel drain valve.
3. Install the new fuel drain valve.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.3.7 REPLACE OVERFLOW ASSEMBLY

CONDITION(S): Given the UAV, tools, and materials.

STANDARD: Remove fuel overflow assembly as per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old overflow assembly.
3. Install the new overflow assembly.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

TASK: 9816.3.8 REPLACE FUEL SUPPLY PIPES

CONDITION(S): Given the UAV, tools, and materials.

STANDARD: Fuel supply pipes are replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Locate external airframe components.
2. Remove the old fuel overflow flex lines.
3. Install the new fuel overflow flex lines.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.3.9 INSPECT FUEL LINES

CONDITION(S): Given the UAV.

STANDARD: All discrepancies are identified.

PERFORMANCE STEPS:

1. Locate UAV fuel pipes.
2. Identify unacceptable conditions of fuel pipes.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.3.10 REPAIR MINOR FUEL TANK DAMAGE

CONDITION(S): Given the UAV, carburetor, and tools.

STANDARD: Fuel tank damage is repaired to a serviceable state.

PERFORMANCE STEPS:

1. Locate damage.
2. Take appropriate action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.3.11 REPLACE THE FUEL PUMP

CONDITION(S): Given the UAV, fuel pump, and tools.

STANDARD: The fuel pump is replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old fuel pump.
3. Install the new fuel pump.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1

2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 4 - MAINTAIN UAV PAYLOAD SYSTEMS

TASK: 9816.4.1 PERFORM A MKD-200 VISUAL INSPECTION

CONDITION(S): Given the UAV with MKD-200, and NAVAIR A1-SRRPV-SRP-850.

STANDARD: All required items are inspected and all discrepancies identified.

PERFORMANCE STEPS:

1. Locate MKD-200 units and sub-assembly mounting hardware.
2. Identify unacceptable conditions of MKD-200 inter-connecting wires, cables, and connectors.
3. Identify unacceptable conditions of unit cases.
4. Identify unacceptable conditions of MKD-200 bubble dome.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-SRP-850

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.4.2 PERFORM A MKD-400 VISUAL INSPECTION

CONDITION(S): Given the UAV with MKD-400, and NAVAIR A1-SRRPV-SRP-860.

STANDARD: All required items are inspected and all discrepancies identified.

PERFORMANCE STEPS:

1. Locate MKD-400 units and sub-assembly mounting hardware.
2. Identify unacceptable conditions of MKD-400 wires, connectors, and harnesses.
3. Identify unacceptable conditions of unit cases.
4. Identify unacceptable conditions of the MKD-400 germanium window.
5. Identify unacceptable conditions of MKD-400 nitrogen bottles and cooling system.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-SRP-860

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.4.3 CLEAN THE MKD-200 PAYLOAD SYSTEM

CONDITION(S): Given the UAV with MKD-200, glass cleaner, lint free towels, p.m. brush, and NAVAIR A1-SRRPV-SRP-850.

STANDARD: All dirt/foreign material is removed.

PERFORMANCE STEPS:

1. Locate the UAV power switch.
2. Locate the MKD-200 bubble dome.
3. Apply cleaning materials.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-SRP-850

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.4.4 CLEAN THE MKD-400 PAYLOAD SYSTEM

CONDITION(S): Given the UAV with MKD-400, and NAVAIR A1-SRRPV-SRP-860.

STANDARD: All dirt/foreign material is removed.

PERFORMANCE STEPS:

1. Locate the UAV power switch.
2. Locate the MKD-400 germanium window.
3. Apply cleaning materials.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-SRP-860

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.4.5 PERFORM MKD-400 PREFLIGHT PROCEDURES

CONDITION(S): Given the UAV with MKD-400, GCS/PCS, nitrogen bottles, tools, equipment, and NAVAIR A1-SRRPV-SRP-860.

STANDARD: Nitrogen bottles are properly installed per the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Locate the germanium window protective cover.
3. Locate the nitrogen bottle mounting hardware.
4. Install Nitrogen bottles.
5. Perform functional test.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-SRP-860

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.4.6 PERFORM MKD-400 POST-FLIGHT PROCEDURES

CONDITION(S): Given the UAV with MKD-400, GCS/PCS, NAVAIR A1-SRRPV-SRP-860, and NAVAIR A1-SRRPV-MMI-200.

STANDARD: Post-flight procedures are performed correctly and per the reference.

PERFORMANCE STEPS:

1. Locate all GCS/PCS controls and displays specific to this procedure.
2. Check nitrogen bottle hardware.
3. Check the MKD-400 germanium window.
4. Perform UAV post-flight procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200
3. NAVAIR A1-SRRPV-SRP-860

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.4.7 REPLACE THE MKD-200 STABILIZED PAYLOAD ASSEMBLY

CONDITION(S): Given the UAV with MKD-200, tools, and NAVAIR A1-SRRPV-SRP-850.

STANDARD: The assembly is replaced per the reference.

PERFORMANCE STEPS:

- 1. Remove the old MKD-200.
- 2. Install the new MKD-200.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-SRP-850

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.4.8 REPLACE THE MKD-400 STABILIZED PAYLOAD ASSEMBLY

CONDITION(S): Given the UAV with MKD-400, tools, and NAVAIR A1-SRRPV-SRP-860.

STANDARD: The unit is properly replaced per the reference.

PERFORMANCE STEPS:

- 1. Remove the old MKD-400.
- 2. Replace the forward looking infrared (FLIR) electronics box (FEB).
- 3. Install the new MKD-400.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-SRP-860

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 5 - MAINTAIN THE FLIGHT CONTROL SYSTEM (SERVOS AND FLIGHT SURFACES)

TASK: 9816.5.1 REPLACE THE AILERON SERVOS

CONDITION(S): Given the UAV, servos, and tools.

STANDARD: The Aileron servos are replaced per prescribed procedures contained in the NAVAIR A1-SRRPV-MMI-200.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old aileron servo.
3. Install the new aileron servo.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.5.2 ALIGN THE AILERONS

CONDITION(S): Given the UAV, tools, and equipment.

STANDARD: The Aileron are aligned per prescribed procedures contained in the NAVAIR A1-SRRPV-MMI-200.

PERFORMANCE STEPS:

1. Identify unaligned ailerons.
2. Command the UAV to autopilot disengage.
3. Demonstrate proper use of aileron adjustment device.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.5.3 REPLACE THE ELEVATOR SERVO

CONDITION(S): Given the UAV, servo, and tools.

STANDARD: The elevator servo is replaced per prescribed procedures contained in the NAVAIR A1-SRRPV-MMI-200.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Ensure the servo is centered before attaching linkage.
- 3. Remove the old elevator servo.
- 4. Command the UAV auto pilot to disengage.
- 5. Install the new elevator servo.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.5.4 ALIGN THE ELEVATORS

CONDITION(S): Given the UAV, tools, GCS/PCS, and equipment.

MCO 1510.82A
16 Jan 95

STANDARD: Aligned elevators as per prescribed procedures contained in the NAVAIR A1-SRRPV-MMI-200, type 1 and type 2 elevators have different specifications.

PERFORMANCE STEPS:

1. Identify the alignment error.
2. Demonstrate proper use of the elevator adjustment device.
3. Align the elevator to the proper specifications.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.5.5 REPLACE THE RUDDER SERVO

CONDITION(S): Given the UAV, servo, and tools.

STANDARD: The rudder servo is replaced per prescribed procedures contained in the NAVAIR A1-SRRPV-MMI-200.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old rudder servo.
3. Install the new rudder servo.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

TASK: 9816.5.6 ALIGN THE RUDDER

CONDITION(S): Given the UAV, tools, and equipment.

STANDARD: The rudder is aligned per prescribed procedures contained in the NAVAIR A1-SRRPV-MMI-200, type 1 and type 2 rudders have different specifications.

PERFORMANCE STEPS:

- 1. Identify the alignment error.
- 2. Demonstrate proper use of the rudder adjustment device.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.5.7 REPLACE PUSH-PULL ROD FOR TYPE 1 RUDDER

CONDITION(S): Given the UAV, tools, and equipment.

STANDARD: The push-pull rod is replaced per prescribed procedures contained in the NAVAIR A1-SRRPV-MMI-200.

PERFORMANCE STEPS:

- 1. Identify bowed or broken push-pull rod.
- 2. Replace push-pull rod.
- 3. Perform post replacement procedures.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.5.8 REPLACE THE NOSE WHEEL SERVO

CONDITION(S): Given the UAV, servo, and tools.

STANDARD: The nose wheel servo is replaced per prescribed procedures contained in the NAVAIR A1-SRRPV-MMI-200.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old nose wheel servo.
3. Install the new nose wheel servo.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.5.9 ALIGN THE NOSE WHEEL

CONDITION(S): Given the UAV, tools, and equipment.

STANDARD: The nose wheel is aligned per prescribed procedures contained in the NAVAIR A1-SRRPV-MMI-200.

PERFORMANCE STEPS:

1. Identify the alignment error.
2. Demonstrate the proper use of the nose wheel adjusting device.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.5.10 REPLACE THE THROTTLE SERVO

CONDITION(S): Given the UAV, servo, and tools.

STANDARD: The throttle servo is replaced per prescribed procedures contained in the NAVAIR A1-SRRPV-MMI-200.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove the old throttle servo.
- 3. Install the new throttle servo.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.5.11 ADJUST THE THROTTLE CABLE

CONDITION(S): Given the UAV and tools.

STANDARD: The throttle cable is adjusted per prescribed procedures contained in the NAVAIR A1-SRRPV-MMI-200.

PERFORMANCE STEPS:

- 1. Identify the adjustment problem.

MCO 1510.82A
16 Jan 95

2. Adjust the throttle cable in auto pilot disengaged.
3. Complete the cable adjustments.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.5.12 MAINTAIN THE SERVO LINKAGES

CONDITION(S): Given the UAV.

STANDARD: All discrepancies are identified.

PERFORMANCE STEPS:

1. Identify unacceptable conditions of any servo linkage.
2. Complete the inspection checklist.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

DUTY AREA 6 - MAINTAIN THE ROCKET ASSISTED TAKE OFF (RATO) LAUNCH SYSTEM

TASK: 9816.6.1 LUBRICATE THE LAUNCH STAND LANDING GEAR SUPPORT

CONDITION(S): Given the launch stand, tools, and materials.

STANDARD: Proper lubricant and amount is applied.

PERFORMANCE STEPS:

1. Locate launch stand landing gear support pivot points.
2. Apply lubricant.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.6.2 ADJUST THE NOSE WHEEL SUPPORT LEG

CONDITION(S): Given the launch stand and tools.

STANDARD: The nose wheel support leg is adjusted per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Locate the nose wheel support leg.
2. Check the adjustment.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.6.3 REPLACE THE FIRE CONTROL BOX BATTERIES

CONDITION(S): Given Fire Control Box tools and materials.

STANDARD: The fire control box batteries are replaced per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Locate the fire control box batteries.
2. Remove the old batteries.
3. Install the new batteries.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.6.4 PREPARE THE RATO LAUNCH STAND FOR THE UAV

CONDITION(S): Given the RATO launch stand.

STANDARD: The RATO launch stand is prepared for launch per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Locate/check the RATO stand components.
2. Locate/check the blast shield.

REFERENCE(S):

1. FM 3-22-1

2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.6.5 INSTALL THE RATO LAUNCH CONTROL EQUIPMENT

CONDITION(S): Given tools, equipment, and materials.

STANDARD: The RATO launch control equipment is installed per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Establish a RATO launch control position.
- 2. Locate equipment at the RATO launch control position.
- 3. Perform continuity checks on equipment.
- 4. Check the fire control box batteries.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.6.6 MOUNT THE UAV ON THE RATO LAUNCH STAND

CONDITION(S): Given UAV and RATO Launch Stand.

STANDARD: The UAV is mounted per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Conduct standard safety procedures for ordnance handling.
- 2. Locate the RATO launch stand components.

MCO 1510.82A
16 Jan 95

3. Inspect the RATO launch stand tension link.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.6.7 UP-LOAD THE RATO BOTTLE

CONDITION(S): Given UAV tools, and materials.

STANDARD: The RATO bottle is uploaded per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Conduct standard safety procedures for ordnance handling.
2. Locate the ship's fresh air intakes.
3. Instruct the launch safety control officer to request AMBER DECK.
4. Locate the rocket motor/initiator container.
5. Inspect the rocket motor.
6. Identify the shear wire requirements for RATO bottle.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

TASK: 9816.6.8 PERFORM RATO CHECKS

CONDITION(S): Given the UAV and RATO system.

STANDARD: Final checks are performed per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Locate the remote safe/arm switch.
2. Locate the ignitor circuit tester.
3. Locate/inspect the shunting plug.
4. Verify firing circuit resistance.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.6.9 PREPARE THE UAV FOR LAUNCH

CONDITION(S): Given the UAV, RATO system, and documentation.

STANDARD: The UAV is ready for launch.

PERFORMANCE STEPS:

1. Locate/check the RATO assemblies and subassemblies.
2. Locate/check the UAV external components used for RATO.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.6.10 PERFORM THE RATO LAUNCH SYSTEM PREFLIGHT CHECK

CONDITION(S): Given the UAV and RATO System.

STANDARD: The preflight check is conducted correctly and discrepancies identified.

PERFORMANCE STEPS:

1. Identify unacceptable conditions of RATO launch system components.
2. Locate/inspect the remote safe/arm switch.
3. Locate/inspect the blast shield.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.6.11 LAUNCH THE UAV

CONDITION(S): Given the UAV, RATO system, and pilot feedback.

STANDARD: The UAV is launched correctly and safely.

PERFORMANCE STEPS:

1. Request green deck for launch.
2. Locate the RATO stand safety lock pin.
3. Instruct the launch safety control officer to perform final launch site inspection.
4. Locate the remote safe/arm switch.
5. Verify that both pilots are ready for launch.
6. Locate the flight deck annunciator lamp.

7. Take corrective action as required.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.6.12 PERFORM RATO ABORT PROCEDURES

CONDITION(S): Given the UAV and RATO System.

STANDARD: The RATO abort is conducted correctly, according to procedures, and safely.

PERFORMANCE STEPS:

- 1. Conduct standard safety procedures for ordnance handling.
- 2. Locate the fire control box.
- 3. Verify that the UAV engine has been shut down.
- 4. Locate the remote safe/arm switch.
- 5. Locate the RATO stand safety lock pins.
- 6. Locate the initiator.
- 7. Locate the rocket motor.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.6.13 PERFORM ROCKET MOTOR MISFIRE PROCEDURES

CONDITION(S): Given the UAV and RATO System.

STANDARD: Misfire procedures are performed correctly.

PERFORMANCE STEPS:

1. Conduct standard safety procedures for ordnance handling.
2. Locate the fire control box.
3. Locate the remote safe/arm switch.
4. Locate the initiator and initiator electrical connections.
5. Locate the rocket motor.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.6.14 PERFORM ROCKET MOTOR DISPOSAL PROCEDURES

CONDITION(S): Given the UAV and RATO System.

STANDARD: Disposal procedures are performed correctly.

PERFORMANCE STEPS:

1. Conduct standard safety procedures for ordnance handling.
2. Dispose of rocket motors that have been satisfactorily fired.
3. Dispose of defective or misfired rocket motors/initiators.
4. Notify proper authorities for disposition.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.6.15 REPAIR RATO STAND

CONDITION(S): Given the UAV and RATO System.

STANDARD: Disposal procedures are performed correctly.

PERFORMANCE STEPS:

- 1. Identify defect in RATO Stand.
- 2. Dispose of rocket motors that have been satisfactorily fired.
- 3. Dispose of defective or misfired rocket motors/initiators.
- 4. Notify proper authorities for disposition.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 7 - MAINTAIN THE PNEUMATIC LAUNCH SYSTEM

TASK: 9816.7.1 BLEED THE AIR TANK

CONDITION(S): Given the launcher and tools.

STANDARD: The air tank is bled per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Operate the air compressor controls.
2. Open drain valve V4.
3. Bleed the air tank.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.2 SERVICE BENDIX AIR DRYERS

CONDITION(S): Given the launcher, tools, and materials.

STANDARD: Service the bendix air dryer per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Locate the bendix air dryer's on the launcher.
2. Remove desiccant packs.
3. Install new desiccant packs.

REFERENCE(S):

1. FM 3-22-1

2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.3 SERVICE THE REGULATOR UNIT

CONDITION(S): Given the launcher, tools, and materials.

STANDARD: Service the regulator unit per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

- 1. Locate the regulator unit on the launcher.
- 2. Remove old filter from regulator.
- 3. Install new regulator filter.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.4 LUBRICATE THE DRUM AND BASE STRUCTURE ASSEMBLIES

CONDITION(S): Given the launcher, tools, and materials.

STANDARD: The assemblies are lubricated per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

- 1. Locate/check the five drum assembly grease fittings.
- 2. Locate/check the two base structure assembly grease fittings.
- 3. Inspect tension spring.
- 4. Apply lubricant.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.5 INSPECT THE AIR TURBINE STARTER LUBRICATING OIL

CONDITION(S): Given the launcher, tools, and materials.

STANDARD: All discrepancies are identified.

PERFORMANCE STEPS:

1. Position the launcher to travel attitude.
2. Locate/check the starter oil filler cap.
3. Locate/check the oil level indicator plug and port.
4. If needed use turbine oil.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.6 INSPECT THE STRAP ASSEMBLY

CONDITION(S): Given the launcher.

STANDARD: The strap assembly is inspected per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Locate/check the strap assembly.
2. Locate/check the strap assembly rollers.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-LAU-800
- 3. Pub #MRC 2.1.2.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.7 MAINTAIN THE LAUNCH RAILS

CONDITION(S): Given the launcher and materials.

STANDARD: The rail coating is inspected per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

- 1. Locate/check the rails.
- 2. Clean rails if needed.
- 3. Coat rails if needed.
- 4. Locate holdback mechanism.
- 5. Demonstrate proper use of master jig and force gauge.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.8 INSPECT THE HOLDBACK MECHANISM

CONDITION(S): Given the launcher.

STANDARD: The holdback mechanism is inspected per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

MCO 1510.82A
16 Jan 95

PERFORMANCE STEPS:

1. Identify/check holdback mechanism latch assembly and rollers.
2. Identify/check the holdback mechanism.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800
3. Pub #MRC 2.1.4.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.9 MAINTAIN THE DRUM

CONDITION(S): Given the launcher.

STANDARD: The drum is inspected per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Locate/check the drum rollers.
2. Locate/check the drum assembly.
3. Clean the drum rollers and assembly.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800
3. Pub #MRC 2.1.2.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

TASK: 9816.7.10 INSPECT THE AIR TURBINE STARTER FOR OIL LEAKAGE

CONDITION(S): Given the launcher, tools, and materials.

STANDARD: The air turbine starter is inspected per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Identify any signs of oil leakage on starter external surface.
2. Locate/check the O-ring, filler cap, and oil drain plug.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.11 INSPECT THE OIL MAGNETIC PLUG

CONDITION(S): Given the launcher and tools.

STANDARD: The oil magnetic plug is inspected per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Locate the air turbine starter.
2. Locate/check the starter oil magnetic plug.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MCO 1510.82A
16 Jan 95

TASK: 9816.7.12 INSPECT AIR TANK PRESSURIZATION

CONDITION(S): Given the launcher and tools.

STANDARD: The air tank pressurization is inspected per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Locate/check the launcher air supply hose.
2. Locate/check the air tank drain valve.
3. Locate/check the air turbine pipe tube connectors.
4. Locate/check the air supply relief valve.
5. Locate/check the air supply hose coupler.
6. Locate/check launch valve V8 and pre-load valve V9.
7. Locate/check manual main valve V6.
8. Locate/check drain valve V4 and on/off valve V3.
9. Locate/check pressure regulator valve V1.
10. Locate/check the air supply assembly pressure gauge.
11. Locate/check the air tank pressure gauge.
12. Locate/check all connectors and pneumatic accessories.
13. Locate/check control on/off valve V5.
14. Identify and leaking condition of any connector.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800
3. Pub #MRC 2.1.3
4. Pub #MRC 3.2.3.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

TASK: 9816.7.13 INSPECT THE PRESSURE GAUGES AND RELIEF VALVE

CONDITION(S): Given the launcher.

STANDARD: The pressure gauges and relief valve are inspected per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Verify that the air pressure source meets requirements.
2. Locate/check the pressure gauge and relief valve mounting hardware.
3. Demonstrate the use of the pressure gauge test set.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.14 INSPECT THE CATCH-RELEASE ASSEMBLY

CONDITION(S): Given the launcher.

STANDARD: The catch-release assembly is inspected per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Demonstrate use of the test stand in this procedure.
2. Locate/check the UAV catch-release mechanism mounting hardware.
3. Demonstrate use of the dynamometer in this procedure.
4. Locate/check the launcher strap.
5. Replace the catch-release mechanism if required.

REFERENCE(S):

1. FM 3-22-1

2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.15 INSPECT THE EXTENSION AND LOADING RAMP

CONDITION(S): Given the launcher.

STANDARD: The extension and loading ramp is inspected per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Identify unacceptable conditions of extensions or loading ramp.
2. Check the extension attaching points and hardware.
3. Check the loading ramp attaching points and hardware.
4. Check extension trusses and rails.
5. Check loading ramp trusses and rails.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.16 ADJUST THE AIR PRESSURE REGULATOR

CONDITION(S): Given the launcher.

STANDARD: The air pressure regulator is adjusted per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Locate/check on/off valve V3.
2. Locate/check the air supply and hose.

3. Locate/check air pressure regulator V1 locknuts.
4. Locate/check drain valve V4.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.17 INSPECT THE LAUNCHER FOR CORROSION

CONDITION(S): Given the launcher.

STANDARD: All discrepancies are identified.

PERFORMANCE STEPS:

1. Identify unacceptable conditions of painted parts.
2. Identify unacceptable conditions of lubricated parts.
3. Take corrective action.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.18 PERFORM A LAUNCHER FUNCTIONAL TEST

CONDITION(S): Given the launcher and equipment.

STANDARD: A launcher functional test is performed per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

Appendix G to
ENCLOSURE (6)

PERFORMANCE STEPS:

1. Verify the launcher is assembled.
2. Locate/check power plug P3 and dummy socket.
3. Locate/check the extension cable and rear socket J3.
4. Locate/check the air supply hose and compressor/supply coupler.
5. Locate/check manual main valve V6 and on/off valve V3.
6. Locate/check the air tank pressure gauge.
7. Locate/check jacks J1, J5 and control cable W2.
8. Locate/check panel jack J2, power supply box, and power cable W3.
9. Locate/check control on/off valve V5.
10. Locate/check arm/safe switch S2.
11. Locate/check test launch switch S1.
12. Locate/check the holdback mechanism.
13. Demonstrate the operation of the pneumatic launcher.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.19 PERFORM A LAUNCHER SYSTEM OPERATIONAL TEST

CONDITION(S): Given the launcher and equipment.

STANDARD: A launcher system operational test is performed per prescribed procedures contained in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Locate/check the launcher test weight.

2. Locate/check power plug P3.
3. Locate/check the extension cable and rear socket J3.
4. Locate/check the air supply hose and compressor/supply coupler.
5. Locate/check manual main valve V6, control on/off valve V5, drain valve given pictorial representation and from V4, and on/off valve V3.
6. Locate/check the air tank pressure gauge.
7. Locate/check cable W2 and jacks J5, and J1.
8. Locate/check cable W3, jack J2, and power supply box.
9. Locate/check the strap and test weight catch-release mechanism.

REFERENCE(S) :

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.20 REPLACE PRESSURE REGULATOR V1

CONDITION(S): Given the launcher, tools, and regulator.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old pressure regulator V1.
3. Install the new pressure regulator V1.
4. Perform post-replacement procedures.

Appendix G to
ENCLOSURE (6)

MCO 1510.82A
16 Jan 95

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.21 REPLACE THE PRESSURE GAUGE

CONDITION(S): Given the launcher, tools, and gauge.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old pressure gauge.
3. Install the new pressure gauge.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.22 REPLACE ON/OFF BALL VALVE V3

CONDITION(S): Given the launcher, tools, and valve.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.

Appendix G to
ENCLOSURE (6)

- 2. Remove the old on/off ball valve V3.
- 3. Install the new on/off ball valve V3.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.23 REPLACE DRAIN VALVE V4

CONDITION(S): Given the launcher, tools, and valve.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

- 1. Perform preparation procedures.
- 2. Remove old drain valve V4.
- 3. Install new drain valve V4.
- 4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.24 REPLACE RELIEF VALVE V2

CONDITION(S): Given the launcher, tools, and valve.

MCO 1510.82A
16 Jan 95

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove old relief valve V2.
3. Install new relief valve V2.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.25 REPLACE THE AIR SUPPLY HOSE

CONDITION(S): Given the launcher, tools, and hose.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old air supply hose.
3. Install the new air supply hose.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

TASK: 9816.7.26 REPLACE MANUAL MAIN VALVE V6

CONDITION(S): Given the launcher, tools, and valve.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove old manual main valve V6.
3. Install new manual main valve V6.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.27 REPLACE CONTROL ON/OFF BALL VALVE V5

CONDITION(S): Given the launcher, tools, and valve.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove old control on/off ball valve V5.
3. Install new control on/off ball valve V5.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.28 REPLACE CONTROL VALVE V7

CONDITION(S): Given the launcher, tools, and valve.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove old control valve V7.
3. Install new control valve V7.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.29 REPLACE LAUNCH VALVE V8

CONDITION(S): Given the launcher, tools, and valve.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.

2. Remove old launch valve V8.
3. Install new launch valve V8.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.30 REPLACE SOLENOID ACTUATED PRE-LOAD VALVE V9

CONDITION(S): Given the launcher, tools, and valve.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove old solenoid actuated pre-load valve.
3. Install new solenoid actuated pre-load valve.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.31 REPLACE THE DRIVE CONTROL SILENCER

CONDITION(S): Given the launcher, tools, and silencer.

MCO 1510.82A
16 Jan 95

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old drive control silencer.
3. Install the new drive control silencer.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.32 REPLACE THE DRIVE CONTROL PRESSURE GAUGE

CONDITION(S): Given the launcher, tools, and gauge.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old drive control pressure gauge.
3. Install the new drive control pressure gauge.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

6-G-80

TASK: 9816.7.33 REPLACE THE DRUM ASSEMBLY

CONDITION(S): Given the launcher, tools, and drum assembly.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old drum assembly.
3. Install the new drum assembly.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.34 REPLACE THE AIR TURBINE STARTER

CONDITION(S): Given the launcher, tools, and starter.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old air turbine starter.
3. Install the new air turbine starter.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.35 REPLACE THE LAUNCH STRAP

CONDITION(S): Given the launcher, tools, and strap.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old launch strap.
3. Install the new launch strap.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.36 REPLACE THE HOLDBACK MECHANISM SPRING CAPSULES

CONDITION(S): Given the launcher, tools, and spring capsules.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.

2. Remove the old holdback mechanism spring capsules.
3. Install the new holdback mechanism spring capsules.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.37 REPLACE THE HOLDBACK MECHANISM

CONDITION(S): Given the launcher, tools, and holdback mechanism.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old holdback mechanism.
3. Install the new holdback mechanism.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.38 REPLACE THE LATCH ASSEMBLY

CONDITION(S): Given the launcher, tools, and support assembly.

MCO 1510.82A
16 Jan 95

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old latch assembly.
3. Install the new latch assembly.
4. Perform post replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.7.39 REPLACE THE SUPPORT ASSEMBLY

CONDITION(S): Given the launcher, tools, and support assembly.

STANDARD: The unit is properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Check the air supply system filter.
2. Perform a corrosion check.
3. Perform a rail check.
4. Perform a launcher system operational test.
5. Clean the catch-release mechanism.
6. Check the holdback mechanism.
7. Bleed the air tank.
8. Check the air turbine starter oil level.
9. Perform a launcher functional test.

Appendix G to
ENCLOSURE (6)

6-G-84

- 10. Perform a drum check.
- 11. Perform a strap assembly check.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 8 - MAINTAIN THE PNEUMATIC LAUNCHER CONTROL SYSTEMS

TASK: 9816.8.1 PERFORM THE LAUNCHER SYSTEM DAILY INSPECTION

CONDITION(S): Given the launcher system, dummy load, molicite and inclinometer.

STANDARD: All required items are inspected and all discrepancies identified.

PERFORMANCE STEPS:

- 1. Locate control box controls and displays specific to this procedure.
- 2. Locate/check cable W6.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.8.2 PERFORM TROUBLESHOOTING/FAULT SYMPTOM ANALYSIS

CONDITION(S): Given the launcher system.

MCO 1510.82A
16 Jan 95

STANDARD: Causes of faults are correctly identified.

PERFORMANCE STEPS:

1. Identify the function of launcher subsystems.
2. Locate all control box controls and displays specific to this procedure.
3. Locate control box electrical connectors.
4. Follow Troubleshooting as per the NAVAIR A1-SRRPV-LAU-800.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.8.3 ADJUST THE MANUAL MAIN VALVE V6 MICROSWITCH

CONDITION(S): Given the launcher system, tools, parts, materials, and NAVAIR A1-SRRPV-LAU-800.

STANDARD: Adjustment is performed per specifications in the reference.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Perform adjustment procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

TASK: 9816.8.4 ADJUST THE HOLDBACK MICROSWITCH

CONDITION(S): Given the launcher system, tools, and lockwire.

STANDARD: Adjustment is performed per specifications in the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Perform adjustment procedure.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.8.5 REPLACE MICROSWITCH MS2 AND MS3

CONDITION(S): Given the launcher system, tools, parts, materials, microswitches, and NAVAIR A1-SRRPV-LAU-800.

STANDARD: The units are properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old microswitch.
3. Install the new microswitch.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.8.6 REPLACE THE HOLDBACK MICROSWITCH

CONDITION(S): Given the launcher system, tools, parts, materials, microswitch, and NAVAIR A1-SRRPV-LAU-800.

STANDARD: The units are properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old microswitch.
3. Install the new microswitch.
4. Perform post-replacement procedures.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.8.7 REPLACE THE MANUAL MAIN VALVE V6 MICROSWITCH

CONDITION(S): Given the launcher system, tools, parts, materials, microswitch, and NAVAIR A1-SRRPV-LAU-800.

STANDARD: The units are properly replaced and post replacement procedures are performed per the NAVAIR A1-SRRPV-LAU-800.

PERFORMANCE STEPS:

1. Perform preparation procedures.
2. Remove the old V6 microswitch.
3. Install the new V6 microswitch.
4. Perform post-replacement procedures.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 9 - MAINTAIN SUPPORT EQUIPMENT

TASK: 9816.9.1 MAINTAIN THE TOWING TROLLEY WHEELS

CONDITION(S): Given the trolley, tools, and materials.

STANDARD: The towing trolley wheels are maintained in good working order.

PERFORMANCE STEPS:

- 1. Locate the towing trolley wheels.
- 2. Replace the towing trolley wheels, if required.
- 3. Inspect the towing trolley.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-GSE-960.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.9.2 MAINTAIN THE WING ASSEMBLY STAND WHEELS

CONDITION(S): Given the stand, tools, and materials.

STANDARD: The wing assembly stand wheels are maintained in good working order.

MCO 1510.82A
16 Jan 95

PERFORMANCE STEPS:

1. Locate the wheels.
2. Replace the wing assembly stand wheels, if required.
3. Inspect the wing assembly.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GSE-960.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.9.3 MAINTAIN THE FUSELAGE STAND WHEELS

CONDITION(S): Given the stand, tools, and materials.

STANDARD: The fuselage stand wheels are maintained in good working order.

PERFORMANCE STEPS:

1. Locate the wheels.
2. Replace the fuselage stand wheels, if required.
3. Inspect the fuselage stands.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GSE-960.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

6-G-90

TASK: 9816.9.4 MAINTAIN THE REFUELING DEVICE

CONDITION(S): Given the refueling device, and tools.

STANDARD: The refueling device is maintained in good working order as per the NAVAIR A1-SRRPV-GSE-960.

PERFORMANCE STEPS:

1. Locate the refueling device.
2. Clean the refueling device.
3. Remove fuel filter.
4. Install new fuel filter.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GSE-960.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.9.5 DOCUMENT ALL MAINTENANCE ACTIVITIES

CONDITION(S): Given the appropriate forms.

STANDARD: All forms are completed correctly, legibly, and in a timely manner.

PERFORMANCE STEPS:

1. Locate the appropriate forms.
2. Complete the appropriate forms.

REFERENCE(S):

1. FM 3-22-1
2. MCO 4790.2D.

Appendix G to
ENCLOSURE (6)

MCO 1510.82A
16 Jan 95

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.9.6 MAINTAIN THE NITROGEN CHARGING STATION

CONDITION(S): Given the nitrogen charging station.

STANDARD: Maintain the nitrogen charging station as per the
NAVAIR A1-SRRPV-GSE-960.

PERFORMANCE STEPS:

1. Locate the nitrogen charging station.
2. Clean the nitrogen charging station.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GSE-960.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 10 - CONDUCT FLIGHT OPERATIONS

TASK: 9816.10.1 PERFORM DAILY INSPECTIONS

CONDITION(S): Given a deployed HAS.

STANDARD: All required items are inspected and discrepancies
identified.

PERFORMANCE STEPS:

1. Inspect the pneumatic launcher.
2. Inspect the UAV.

Appendix G to
ENCLOSURE (6)

6-G-92

REFERENCE(S):

- 1. FM 3-22-1
- 2. Local MRC decks.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.10.2 PERFORM A LAUNCHER PRE-LAUNCH CHECK

CONDITION(S): Given a deployed launcher.

STANDARD: The check is performed per prescribed procedures contained in the reference. All discrepancies are identified.

PERFORMANCE STEPS:

- 1. Locate the launcher subassembly components.
- 2. Identify unacceptable conditions of launcher components.
- 3. Perform the launcher rail check procedure.
- 4. Perform a pre-launch operational test.
- 5. Perform a dummy test.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.10.3 PERFORM A PNEUMATIC LAUNCHER PREFLIGHT CHECK

CONDITION(S): Given a deployed launcher.

STANDARD: All required items are checked and discrepancies identified.

MCO 1510.82A
16 Jan 95

PERFORMANCE STEPS:

1. Locate/check launcher assemblies and sub-assemblies.
2. Demonstrate use of special equipment for this procedure.
3. Locate/check all launcher system controls and indicators.
4. Locate/check all launcher cables and connectors.

REFERENCE(S)

1. FM 3-22-1
2. Pub #MRC 3.2.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.10.4 PERFORM A ROCKET ASSISTED TAKEOFF (RATO)
LAUNCHER PREFLIGHT CHECK

CONDITION(S): Given the UAV and RATO System.

STANDARD: All required items are checked and discrepancies identified.

PERFORMANCE STEPS:

1. Locate/check the launcher assemblies.
2. Locate/check all launcher system controls and indicators.

REFERENCE(S):

1. FM 3-22-1
2. Pub #MRC 3.3
3. NAVAIR A1-SRRPV-RATO-820

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix G to
ENCLOSURE (6)

TASK: 9816.10.5 LAUNCH THE UAV

CONDITION(S): Given the launcher, UAV, and communication with PCS/GCS operator.

STANDARD: The UAV is launched per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Apply local safety SOPs.
2. Load the UAV onto the pneumatic launcher.
3. Verify the correct launch pressure for UAV weight.
4. Locate manual main valve V6.
5. Verify the PCS/GCS operator is ready for launch.
6. Locate launcher electrical control box controls/indicators applicable to this procedure.
7. Locate launcher control module controls/indicators applicable to this procedure.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.10.6 PERFORM A LAUNCHER POST-LAUNCH CHECK

CONDITION(S): Given a launcher.

STANDARD: The check is performed per prescribed procedures contained in the reference. All discrepancies are identified.

PERFORMANCE STEPS:

1. Identify required tools.
2. Perform a pre-launch operational check.

MCO 1510.82A
16 Jan 95

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-LAU-800

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.10.7 PERFORM A SHIPBOARD PIONEER ARRESTING SYSTEM
(SPARS) POST-RECOVERY CHECK

CONDITION(S): Given the SPARS.

STANDARD: All required items are checked and discrepancies
identified.

PERFORMANCE STEPS:

1. Retrieve the UAV from the shipboard pioneer arresting
system (SPARS).
2. Locate/check the SPARS assemblies and components.
3. Locate/check the external airframe components specific to
this procedure.
4. Identify unacceptable conditions of external airframe
components.

REFERENCE(S):

1. FM 3-22-1
2. Pub #1-UAV-BB, para 5-2.1.5.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.10.8 INSPECT THE UAV AFTER NET RECOVERY

CONDITION(S): Given the UAV.

Appendix G to
ENCLOSURE (6)

STANDARD: All damaged external airframe components are identified.

PERFORMANCE STEPS:

1. Locate/check external airframe components.
2. Identify unacceptable conditions of external airframe components.

REFERENCE(S):

1. FM 3-22-1
2. Pub #MRC 5.1.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 11 - WEIGH AND BALANCE THE UAV

TASK: 9816.11.1 SET UP THE MECHANICAL WEIGHT AND BALANCE DEVICE

CONDITION(S): Given the weight and balance device.

STANDARD: The weight and balance device is set up correctly, per the NAVAIR A1-SRRPV-WAB-400.

PERFORMANCE STEPS:

1. Suspend the device.
2. Attach the dynamometers to device horizontal beam.
3. Level the device horizontal beam.
4. Attach the UAV to the device.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-WAB-400

Appendix G to
ENCLOSURE (6)

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.11.2 SET UP THE ELECTRONIC WEIGHT AND BALANCE DEVICE

CONDITION(S): Given the electronic weight and balance device and a battery.

STANDARD: The electronic weight and balance device is set up correctly, per the NAVAIR A1-SRRPV-WAB-400.

PERFORMANCE STEPS:

1. Locate the electronic weight and balance device and assemble it.
2. Calibrate electronic weight and balance device.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-WAB-400

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.11.3 PERFORM UAV WEIGHING PROCEDURES

CONDITION(S): Given the UAV and W&B Device.

STANDARD: The UAV is correctly weighed and balanced.

PERFORMANCE STEPS:

1. Demonstrate use of the weight and balance device.
2. Calculate required balance weights.
3. Complete the UAV weight and balance form.
4. Install the UAV balance weights.
5. Identify the dimensions of the UAV balance weights.

6. Replace sub-system balance weights.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-WAB-400

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 12 - PREPARE THE SYSTEM FOR TRANSPORT

TASK: 9816.12.1 TEAR DOWN THE UAV SYSTEM

CONDITION(S): Given the UAV, tools, container, and required personnel.

STANDARD: The system is properly dismantled per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Store the UAV in the shipping container.
- 2. Disconnect system cables.
- 3. Store system cables.
- 4. Disassemble the pneumatic launcher.

REFERENCE(S):

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.12.2 PREPARE THE LAUNCHER FOR STORAGE

CONDITION(S): Given the launcher and materials.

STANDARD: The launcher is stored per prescribed procedures contained in the reference.

PERFORMANCE STEPS:

1. Identify storage procedures.
2. Place the launcher in storage.

REFERENCE(S):

1. FM 3-22-1
2. NAVAIR A1-SRRPV-GSE-960

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.12.3 SECURE THE UAV SYSTEM

CONDITION(S): Given the UAVs in containers, vehicle, and required personnel.

STANDARD: All elements of the system are properly secured.

PERFORMANCE STEPS:

1. Load UAV containers onto the UAV transport vehicle.
2. Secure the ground control station (GCS).
3. Secure the tracking and communications unit (TCU).
4. Secure the portable control station (PCS) on trailer.
5. Secure the pneumatic launcher.
6. Secure the maintenance trailer.
7. Secure the GSE trailer.
8. Secure the GDS backup battery trailer.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9816.12.4 DE-FUEL/PURGE THE UAV

CONDITION(S): Given the UAV, tools, and equipment.

STANDARD: All fuel is removed from the UAV using correct procedures contained in the reference.

PERFORMANCE STEPS:

- 1. Conduct standard safety procedures.
- 2. Locate external airframe components.
- 3. Empty the fuel tank.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAVAIR A1-SRRPV-MMI-200

ADMINISTRATIVE INSTRUCTIONS: (NONE)

MOS 9817, REMOTE RECEIVING STATION (RRS) OPERATOR

DUTY AREA 1 - OPERATIONS

TASK: 9817.1.1 PERFORM PRE-OPERATIONAL PROCEDURES

CONDITION(S): Given the mission plan, a contour map of the mission area, tools, a disassembled TUA, and a disassembled main unit.

STANDARD: Pre-operational procedures are completed in a timely and accurate manner.

PERFORMANCE STEPS:

1. Plot the UAV flight path and the deployment area.
2. Select the deployment site at supported unit.
3. Set up the remote receiving station (RRS).
4. Perform remote receiving station operational check.

REFERENCE(S):

1. FM 3-22-1
2. NAA1-SRRPV-RRS-9008

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9817.1.2 PERFORM GROUND OPERATIONAL PROCEDURES

CONDITION(S): Given a vehicle mounted RRS and a communications link with the GCS.

STANDARD: The Marine can operate the RRS in a proficient manner.

PERFORMANCE STEPS:

1. Brief the UAV capabilities/limitations to the user command.
2. Perform mission procedures.
3. Relay requests from supported unit to payload operator at the GCS.

REFERENCE(S):

1. FM 3-22-1
2. NAA1-SRRPV-RRS-9008

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9817.1.3 PERFORM AIR OPERATIONAL PROCEDURES

CONDITION(S): Given a UH1-N helicopter, RRS and a communications link with the GCS.

STANDARD: The Marine can operate the RRS in a proficient manner.

PERFORMANCE STEPS:

1. Make liaison with aircrew one day prior to mission (if possible), to obtain flight information.
2. Perform operational checks for airborne operations.
3. Load RRS into UH1-N helicopter.
4. Perform communications check with GCS site using ACS package (if installed in aircraft).
5. Perform RRS operational check prior to take off.
6. Perform mission procedures.
7. Relay requests from supported unit to payload operator at the GCS.
8. Advise GCS site when RTB.
9. Remove RRS from helicopter.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAA1-SRRPV-RRS-9008

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9817.1.4 PERFORM POST MISSION TASKS

CONDITION(S): Given an operating RRS.

STANDARD: The Marine can complete post mission procedures in a timely manner.

PERFORMANCE STEPS:

- 1. Power down the RRS (IAW NAA1-SRRPV-RRS-9008, order reversed).
- 2. Disassemble the RRS (IAW NAA1-SRRPV-RRS-9008, order reversed).
- 3. Prepare the RRS for transport (IAW NAA1-SRRPV-RRS-9008, order reversed).

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAA1-SRRPV-RRS-9008

ADMINISTRATIVE INSTRUCTIONS: (NONE)

DUTY AREA 2 - MAINTENANCE

TASK: 9817.2.1 CLEAN THE REMOTE RECEIVING STATION

CONDITION(S): Given the RRS, cloth, silicone, and electrolyte solvent.

STANDARD: All dirt/foreign material is remove from the RRS.

PERFORMANCE STEPS:

1. Identify areas requiring cleaning.
2. Utilize only authorized cleaning materials.
3. Clean the RRS.

REFERENCE(S):

1. FM 3-22-1
2. NAA1-SRRPV-RRS-9008

ADMINISTRATIVE INSTRUCTIONS: (NONE)

TASK: 9817.2.2 PERFORM PREVENTIVE MAINTENANCE PROCEDURES

CONDITION(S): Given the RRS.

STANDARD: All discrepancies are identified.

PERFORMANCE STEPS:

1. Perform an RRS general check.
2. Perform an RRS visual inspection (IAW NAA1-SRRPV-RRS-9008).
3. Fill out OMDR and submit any discrepancies to the maintenance section.

REFERENCE(S) :

- 1. FM 3-22-1
- 2. NAA1-SRRPV-RRS-9008.

ADMINISTRATIVE INSTRUCTIONS: (NONE)

Appendix H to
ENCLOSURE (6)